



PROPUESTA PROYECTO FIN DE CARRERA

**“Universal Visual Communication System
Design for a Shopping Center and Other
Entertaining Places and Activities”**

**Departamento de Ing. Matemática e
Informática**

Alumno: Petya Harizanova

Tutor: Alfredo Pina

Pamplona, 15 Abril 2010

INDICE

Objeto del PFC	3
Descripción del PFC	3
Equipos necesarios	3

OBJETO DEL PFC

To create a sign / character that:

- can be understood without any help / assistance by anyone,
- which explains an action with only a few strokes,
- in a way that the image looks as if it is moving.

is not that simple as it seems.

It requires knowledge in different areas. Designing a Universal System for Visual Communication (in brief “pictograms”), requires basic knowledge in psychology, sensation (perception), associative and everything else that is related to the basic thinking and perception of a person. It is known that most people perceive visually first and the other senses come after that and are used for obtaining more specific information about a particular problem. When we are very young we start by learning words and motions from pictures, that in the beginning are very easy to understand, and in time change to be more detailed, colorful and difficult to understand. In fact we go from very concrete pictograms to more abstract and general pictograms.

Nowadays, however everyone is trying to spend as much time as possible for their job, making money. So reducing the time for preparing a meal, or cleaning, or reading, or even looking for information is more important than doing those things. That is why use of universal images for different activities would be useful for our daily life. It will be useful especially when it is consistent with the time and space. Of course such universal images already exist. If you just see one image you already know what it means. We have the same situation when someone is driving. If a driver sees a traffic sign he knows for example that he has to slow down or to stop and wait etc. And a driver can react to different situations with just one look at a sign.

DESCRIPCIÓN DEL PFC

The purpose of my project is to create A System of Visual Communication that can be used for particular location such as a shopping center. And because some of the images are universal they can be used in other places as well. I limited my choice to images for a shopping center (including parkings, cinema, etc...)

After a tour in several large shopping centers in Bulgaria and Spain I have made a list of actions that must necessarily be included:

1. Elevators
2. Escalators
3. Toilets
4. Information
5. Car park
6. Parking for wheels
7. Emergency exit
8. Input / Output
9. Staircase
10. Staff Room
11. Fireplug

12. Disabled (elevator to ~)
13. Prohibited / permitted smoking
14. It is forbidden for pets
15. Prohibited the entry of food
16. ATM / Bank

Besides the above, there must be other images that show the different shops in the shopping center:

1. Pharmacy
2. Optics
3. Dry Cleaning
4. Grocery store
5. Shop for household
6. Lingerie Shop
7. Clothing
8. Shoes
9. Shop for hats
10. Coffee shop / tea / sweets / chocolate
11. Sporting goods and accessories
12. Jewelry
13. Perfumery
14. Shop for Bags
15. Photo
16. Safe to pay bills
17. Flower shop
18. Shop for gifts and souvenirs
19. Electronics
20. Bookstore

Usually in large shopping centers there are various attractions and activities for customers to spend their time:

1. Restaurant
2. Cafe
3. Bar
4. Casino
5. Game room (bowling, foosball, arcade games, darts, pool ...)
6. Internet (coffee)
7. Children's Center (recreational center for children, their parents shop)
8. Hairdressers
9. Cinema

Maybe not all of the above can be designed (during this project), but the universal ones will be. I will try to make all of them.

Besides the creation of all these images I will have to think of a way to present the new characters and to find a way to introduce them to people. The approach I use is similar to that already exist in our society except that the method I use for displaying them is different (little more unconventional); when the images are ready I will need to pre-test it with groups of users. And also I will have to design the way they will be placed in the shopping center in front of the customers (to design a carrier, some kind of signs, posters, arrows, lights (if any), color etc.

For this project I will use already prepared base images, which I did last semester at TU-Sofia. Main figures in basic positions like standing, walking, running, sitting, lying, Based on these basic configurations I will develop a Universal Visual Communication System Design for a Shopping Center.

EQUIPOS QUE SE NECESITA UTILIZAR PARA LA RELAZION DEL PFC:

Software programs used in the project:

Word (for the text part)

PowerPoint (for the presentation)

CorelDraw (for the design of the pictograms)

Photoshop (for the design of the pictograms)

Inventor or 3dsMax (for the design of the carrier)

I. Stage pre-project (before we start the project we have to think of the main idea):

1. Introduction.

Since ancient times people on Earth use symbols and simple pictures to explain the world around them. The explanation of a situation or event is easier to be done by images of some kind, than explained in words. How can you find a universal language which can be used all around the world? A language that can be understood by people from different cultures and religions. In the Bible there is a fragment that explainsthat God was very disappointed by His creations that is way He decided to punish them. And He does this by making them speak different languages. Wouldn't it be perfectly easy and friendly on this planet if everyone speaks the same language, if we can all get along? If we can communicate? Communication can be the salvation of the global problems nowadays.

2. Finding the main problem.

And yet it is not possible for all the people to be taught and made to speak one and only language. Which will that language be? In order to find a universal way of showing what you mean you need to use brief information, that is visually standardized and intended to be independent of its cultural context. So what we need is not another alphabet but a way of communication.

Pictograms are a type of graphic symbol which communicate their meaning through their form. Ideally they are intended to stand alone but in practice are often used in conjunction with words which either repeat the meaning of the pictogram or add more specific information. Common example is road signs which show both a picture of an airplane and the word 'airport'. A very few alphanumeric (word symbols), such as the 'P' which internationally designates parking space, now have the status of pictograms.

3. Motivation to find a solution to the problem

Pictograms permeate our public and domestic environments. They are used in public and road signage, instructional graphics, and commercial and domestic technologies.

The essential difference between pictograms and other visual symbols is that pictograms are visually standardized and intended to be independent of their cultural context. In addition, pictograms are scalable -- capable of being presented at a range of scales without loss of information.

Pictograms can be

- More concise
- More compact
- More compelling

BUT they require a degree of education and familiarity to 'read'.

The ISO (International Standardization Organization), based in Geneva, ensures the international standardization of pictographic symbols.

4. Essence of the problem-actuality

The essence of the problem is that nowadays the pictograms are a necessity nearly everywhere. Not only on the road but also in buildings, parks, underground facilities, and also in helping people with special needs.

There is an interesting concept about pictograms and their use these days. While cave paintings, dating as far back as 20,000 B.C. are the first evidence of recorded pictures, true written communication is thought to have been developed some 17,000 years later by the Sumerians, around 3500 B.C.

They are known to have recorded stories and preserved records using simple drawings of everyday objects, called pictograms. As civilizations become more advanced, they experienced a need to communicate more complex concepts. By 3100 B.C., Egyptian hieroglyphics incorporated symbols representing thoughts or ideas, called ideograms, allowing for the expression of more abstract concepts than the more literal pictograms. A symbol for an ox could mean food, for example, or the symbol of a setting sun combined with the symbol for a man could communicate old age or death.

But now we witness the reverse of this change. We need simple symbols and images to help us in our day life, reducing the time and effort during busy life.

5. Social commitment-responsibility

-User - who is the user? The User can be everyone who can take benefit from a certain product. He can also be the person who wants the product done. He can get information and then consume it (in other words use it). There is no age, race or gender discrimination. There is a wide variety of users. The age range covers from 6 years of age to 100 years of age. Also users can be males, females or old and young people. There are no demographic or social factors that can impede the understanding of the product.

-Author – can be designer or the creator of a certain product. In this very case the creator is the student from the Technical University in Sofia Petya Georgieva Harizanova

-User (client) – is like a synonym to the User. This is the consumer group that will use the product in the future. There are no demographic or social factors, no age or gender discrimination. The target group of users is between 6 years of age and 100. The goal I am after is to implant the product among wide range of users.

-Employer – for a project to exist there has to be so called Employer (This is private individual or organization), who/which gives the idea and the problem that has to be solved, which can be for example an existing problem. For this project the Employer is the Technical University in Sofia.

-Implanter – He can be the Client or someone else that has the user rights, given to him by the User or the firm that introduces product to the market in order to reach the desired user.

-Artist (executor) – he is a supporter in the process of the creation of the product to a prototype. But he does not take part in the final decisions about the product. The designer does. The executor just follows the assignments he receives from the designer. In this project the executor is the Author.

II. Project stage

1. Concept design

1.1. Historical and geographical research

A **pictogram** or **pictograph** is a symbol representing a concept, object, activity, place or event by illustration. **Pictography** is a form of writing in which ideas are transmitted through drawing. Such pictograms are characterized by their simplified style, which omits all details that are unnecessary to the desired communication. It is the basis for some of the earliest forms of structured written languages, such as Cuneiform and, to some extent, Hieroglyphs.

Pictograms are still in use as the main medium of written communication in some non-literate cultures in Africa, the Americas, and Oceania. Pictograms are also often used as simple symbols by contemporary societies providing a form of communication that is free of language-specific elements and thus can be understood by all. Efforts have been made to develop standard pictograms for use throughout the world, reflecting the increasing needs and desires of humankind to have relationships and communicate with all people without barriers, such as those created by diverse languages.

Etymology

Both **pictogram** and **pictography** share the same Latin root, **pict (us)**, which roughly translates as "painting." It can be combined with either the ending *gram* or *graph*, forms meaning "drawn" or "written." Thus, both terms refer to a pictorial sign or symbol, or a record consisting of pictorial symbols such as a prehistoric cave drawing or a graph or chart with symbols representing the numbers of various items. The term *graph*, the combining form denoting a process or form of drawing, writing, representing, recording, or describing combines with *pict (us)* to form pictography, which thus refers to the act of creating a painting or picture.

Related terms

A pictogram that represents a single idea or meaning may be termed an ideogram. Those that stand for individual words are called logograms.

Pictographs may also be drawn or painted on rocks, in which case they are known as rock art, although the terms "petrogram" and "petrography" also apply. Pictograms that are carved into the rock are termed petroglyphs. A geoglyph is a drawing on the ground, or a large motif, (generally greater than four meters). Some of the most famous negative geoglyphs are the Nazca Lines in Peru.

The term icon is used for pictograms on computers and other electronic devices; with emoticon the term for symbols used to convey content that is specifically emotional.

Earliest use

Native American Pictograph near Saint George, Utah USA

The earliest pictograms were in use in Mesopotamia and predated the famous Sumerian cuneiforms (the oldest of which date to around 3400 B.C.E.). As early as 9000 B.C.E. pictograms were used on tokens which were placed on farm produce. As civilization advanced, creating cities and more complex economic systems, more complex pictographs were devised and used on labels for manufactured goods. Pictograms eventually evolved from

simple labels into a more complex structure of written language, and were written on clay tablets. Marks and pictures were made with a blunt reed called a stylus, the impressions they made were wedge shaped.

As the use of pictograms increased, so did their meaning. Certain signs came to indicate names of gods, countries, cities, vessels, birds, trees, and so forth. These are known as "determinants," and were the Sumerian signs of the terms in question, added as a guide for the reader. Proper names continued to be usually written in purely ideographic fashion. From about 2900 B.C.E., many pictographs began to lose their original function, and a given sign could have various meanings depending on context. The sign inventory was reduced from some 1,500 signs to some 600 signs, and writing became increasingly phonological. Determinative signs were re-introduced to avoid ambiguity.

Pictograms were also used by the ancient Chinese culture since around 5000 B.C.E. and began to develop into logographic writing systems around 2000 B.C.E. Variations of pictogram usage can also be found in other ancient civilizations, such as the Aztec, Mayan and other South American empires. However, as written and spoken languages began to converge and develop into more phonetic and literal meanings, the usage of pictograms diminished.

Yet, the origins in the form of pictograms can still be seen in many modern languages, even if not on an overt or conscious level. For example, the letters of the Roman alphabet contain their origins in pictograms. The letter A, for instance, represented the head of an ox, and if it is turned upside down, a bovine head with horns can be seen.

The first Michelin guide (1900) first used pictograms to communicate complex information efficiently and compactly (as opposed to much public use -- see Shiphol pictograms -- where they add nothing to available text but serve as visual 'noise').

Pictograms came into general use around 1970 with Siemens, Phillips and Toyota being early adopters.

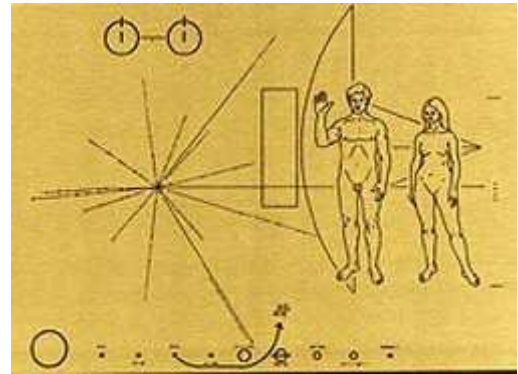
Isotypes

"Words divide. Pictures unite"-> Isotype is an abbreviation of 'International Standard System of Typographic Picture Education'.

Austrian economist, Otto Neurath who, as director of the Vienna Social and Economic Museum introduced his 'Isotype method' in 1936. This consisted of a 'visual dictionary' of about 2000 symbols and a visual grammar -- for putting them together. He believed that the universal adoption of his system would transform the world: "The Isotype method may very well become one of the factors that help bring about a civilization where all people share a common culture and where the gulf between educated and uneducated will be bridged."

Complex Graphics

The very first known 'plot' dates back to the 10-th century (VD-28: first known graph). This was about the same time that Guido of Arezzo was developing the two-dimensional musical staff notation very similar to the one we use today. In the 15-th century Nicolas of Cusa developed graphs of distance versus speed. In the 17th century Rene Descartes established analytic geometry which was used only for the display of mathematical functions. But the main initiator for informative graphics was William Playfair (1759-1823) who developed the line, bar, and pie charts as we know them today.



Petroglyphs

Petroglyphs (petro = rock; glyph = carving) are human-made images which were pecked, scratched, incised or abraded into stone. Petroglyphs date back tens of thousands of years and are found all over the world. They were used by early people to record events, visions and story telling. They were produced using crude tools such as sticks, rocks or bone. Unlike Hieroglyphics, Petroglyphs are generally not a language. They are pictures that tell a story. Some are historic markers, some are geological markers, and some are for ritualistic purposes. Sometimes glyphs were made to label a nearby underground spring or other geological thing.

Images from:



Italy

Naquin National Park (Capo di Ponte) Hunting scene and Acrobatic riding scene, First Iron Age, 7-6 B.C.E



Russia

This piece of rock has over sixty chipped drawings on it: figures of men, deer, elks, birds, and boats with people in them, circles and semicircles with long projections. Many attempts have been made to decode the petroglyph, found in the middle of the 19th century. Some scholars think that the images record the annual economic cycle of the ancient inhabitants of Karelia (circles and semicircles with projections are interpreted as animal traps). Others regard the drawings as mythological scenes connected with sun worship (circles and semicircles) and the cult of ancestors (boats with men).

USA

The upraised arm figure is a common representation of a shamanic dance posture for imbuing supernatural power through the wrist. This is frequently seen as a stick figure with upraised arms and bent legs.

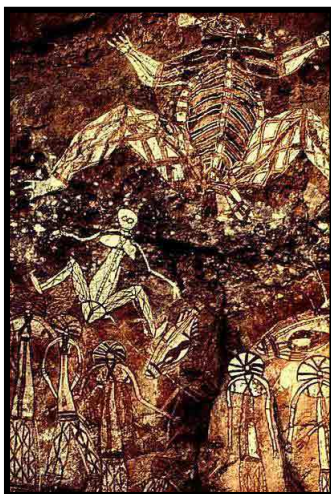


Carved Petroglyph (fragment) Lake Onega 4th-3rd millennium BC Granite L 308 cm, w 240 cm

Rock Painting

Images from:

Australia



Australian rock art shows some of the oldest-known human artistic images, and there is indirect evidence of possibly the earliest known artistic activity anywhere.

Archaeological evidence suggests that humans first arrived in Australia between 60,000 and 65,000 years ago. Northern Australia is the most likely place for people to have traveled from south East Asia across the land bridges then sailed across the ocean gaps to northern Australia.



Archaeologists have now discovered early occupation sites at the three most probable entry areas - the Kimberley, Anthem Land and Cape York Peninsula.

Aboriginal Mythological painting in a cave near Mount Barnett, along the Gibb River Road in the southern Kimberley's, northern Western Australia.



Human figure said to be painted by a Mimi spirit - from Kakadu National Park

Aboriginal people of western Arnhem Land say that their Mimi rock pictures were painted not by humans but by the Mimi spirits. The drawings, usually in red ochre, show elegant, graceful stick-like human figures in action - fighting, running, dancing, leaping and hunting.

Hand and boomerang stencils, made by blowing



water and red ochre from the mouth, on a rock face in Car Narvon National Park, central Queensland.

Africa



Image from Ndedema Shelter, Southern Africa.

The oldest dated San art is 27,000 years old. The last art was made in the 19th century, by when the San had been destroyed or driven out of their ancestral areas in Southern Africa. Though there are no longer any San rock painters, their spirit lives on to inspire those who explore its mysterious meanings. The brilliantly captured images of San rock art are not simply pictures of animals encountered on the Savanna and in the mountains. They are symbolic of beliefs and values, and deeply moved the San mind to fill it with religious feeling. Most often depicted was the eland, the largest African antelope (pictured at the right) believed to hold a supernatural potency like electricity.

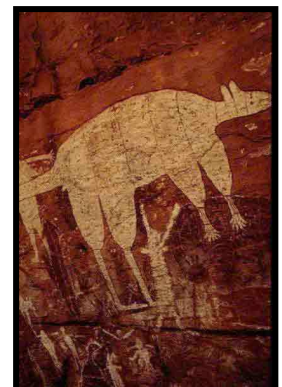
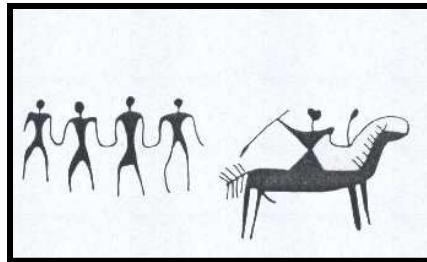


Image from Ndedema Shelter, Southern Africa.

India



Deer from pre-historic rock painting from Bhimbetaka



Villagers Greeting a Hunter Prehistoric (~ 800 to 300 B.C) painting from Hirebenagal Caves in Karnataka



Warriors, Bhimbetaka Rock Painting



France

The Lascaux Caves

Picture Writing



Mesopotamia

Mesopotamia, the land between the Tigris and Euphrates Rivers, was the fertile river plain where civilization was born and where writing first appeared. Southern Mesopotamia was under the control of a series of kings from 3000 B.C. to the 6th century B.C. In its early history, Mesopotamia was a collection of agricultural city-states. These later gave way to centrally controlled empires which spread through conquest.

Mesopotamia, Babylon. Neo-Babylonian Period, Reign of Nabopolassar, 625 - 605 B.C. Clay, 3 7/8 x 2 1/16 in. (9.8 x 5.2 cm)

Cuneiform ("wedge-shaped") writing is Mesopotamia's most important contribution to the rest of the ancient Near East. Its invention revolutionized the way business and trade were conducted and offered the first opportunity for mankind to record written history. Cuneiform and its principal writing medium, the clay tablet, remained in use for over 3,000 years. Scribes adapted cuneiform script for writing many Near Eastern languages and used it to record business transactions, legal codes, and literary, commemorative, and dedicatory texts. This barrel-shaped cylinder of clay is inscribed with a commemorative text that records the repair of the city wall of Babylon by Nabopolassar. In the text, Nabopolassar invokes his own name as king of Babylon, describes the weakening and settling of the Great Wall of Babylon on its original base, and his repair and rebuilding of the foundation wall which "like a mountain its summit I verily raised... Oh, Wall! Remind Marduk, my lord [patron god of Babylon] of the favor." Kings and officials commonly deposited inscribed tablets of this shape into recesses built below or within new or repaired constructions in Mesopotamia. Their deposit sanctified and protected the construction as well as allowing the king or official to record his name and deeds for the gods and posterity.



Mesopotamia, possibly Nippur. Ur III, c. 2044 B.C. Clay. 1921.118 \

Letters or important texts were wrapped in a clay envelope, on which the text was re-recorded and a seal applied. This precaution would prevent anyone from tampering with

the message by rewetting the clay and changing the tablet's contents. A similar system was used for all kinds of containers, sealed with a clay cap, on which the owner's seal was rolled.

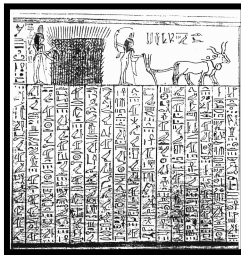
Egypt



Detail of Coffin Case and Cover of the Priestess of Amen-Ra, Nesykhonsu Gessoed and painted sycamore fig wood, height 6 feet 11 inches Egypt, Thebes, late Dynasty 21 or early Dynasty 22

Hieroglyphic	Hieroglyphic	Hieratic	Demotic

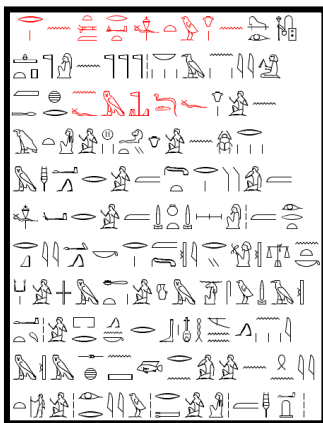
Chart shows development of cursive scripts from pictograms (hieroglyphics)



An example of Egyptian hieroglyphs: the funerary papyrus of Princess Entiu-ny.



Fragment of a Book of the Dead, belonging to Paheby, son of Ankhpakhered and Takhebyt



From The Papyrus of Ani as reproduced in Budge's Egyptian Book of the Dead, first published in 1895.

Hieroglyphs were called by the Egyptians "the words of God" and were used mainly by the priests. In AD 391 the Byzantine Emperor Theodosius I closed all pagan temples throughout the empire. This action terminated a four thousand year old tradition and the message of the ancient Egyptian language was lost for 1500 years. It was not until the discovery of the Rosetta stone and the work of Jean-Francois Champollion (1790-1832) that the Ancient Egyptians awoke from their long slumber.

In the beginning hieroglyphic signs were used to keep records of the king's possessions. Scribes could easily make these records by drawing a picture of a cow or a boat followed by a number. But as the language became more complex more pictures were needed. Eventually the language consisted of more than 750 individual signs. Hieroglyphic script is largely pictorial in character. Most are recognizable pictures of natural or man-made objects, often symbolically color-painted. The ground plan of a simple house, or pr, might stand for the word for "house." These are called ideograms. We do something similar when we use a picture of a heart to represent the word "love" in this sentence "I love New York." The pronunciation of a word is the crucial element in using hieroglyphics, how a word sounds is more important than how it is spelled. Because the words "where" and "wear" sound alike they could be written using the same hieroglyphic signs. The same could be said of the words "there". Hieroglyphs are written in rows or columns and can be read from left to right or from right to left. You can distinguish the direction in which the text is to be read because the human or animal figures always face towards the beginning of the line. Also the upper symbols are read before lower.

THERE are three forms of writing that were used to write the ancient Egyptian language. Hieroglyphics are the original form of writing out of which all other forms have evolved. Two of the newer forms were called hieratic and demotic. Hieratic was a simplified form of hieroglyphics used for administrative and business purposes, as well as for literary, scientific and religious texts. Demotic, a Greek word meaning "popular script", was in general use for the daily requirements of the society. In the third century A.D., hieroglyphic writing began to be replaced by Coptic, a form of Greek writing. The last hieroglyphic text was written at the Temple of Phyla in A.D. 450. The spoken Egyptian language was superseded by Arabic in the Middle Ages.

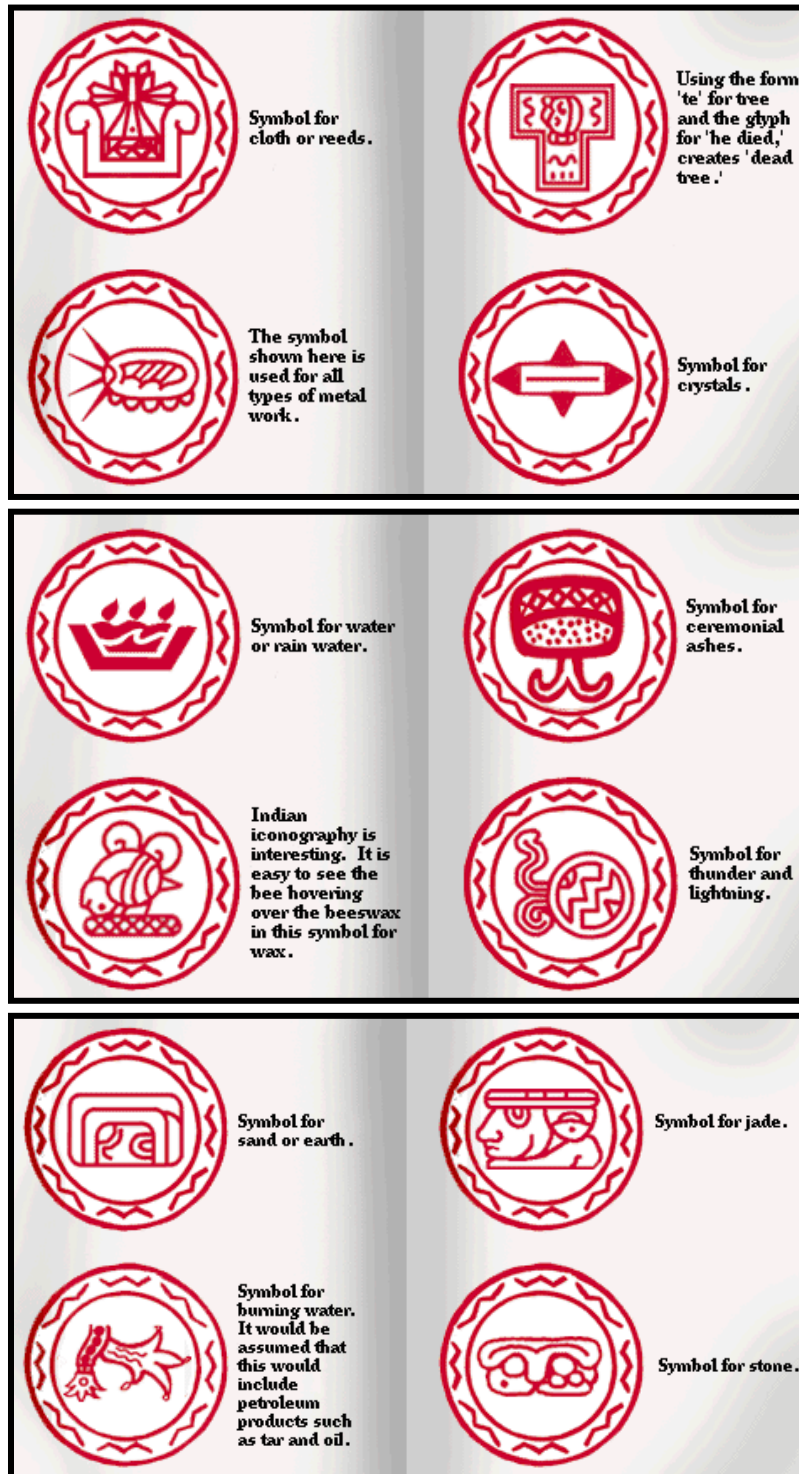
Neurath was much influenced by the severity and geometry of Egyptian wall painting. He visited museums - "The walls were covered with Egyptian wall paintings which greatly pleased me because I could understand every detail, whether they told of the daily life of the Egyptians. What I liked best were pictures with strong, simplified shapes and without too much elaborate detail. It did not matter if a picture was crude and even roughly drawn as long as it gave me information directly or forcefully."

America (Mayan)

The Mayan hieroglyphs are considered to be the most sophisticated and difficult writing system in Mesoamerica and most other ancient writing systems. For years it was believed that the Mayan glyphs would never be translated. The Mayan hieroglyph writing system is similar to the Egyptian hieroglyph system. Unlike the Egyptian hieroglyphs, where they were converted from Egyptian into Greek, there is no easy conversion for the Mayan glyphs from one language to another language. There are many reasons why the Mayan writing system is so difficult. The Mayans used more than 800 individual signs and glyphs that could be combined into any manner to form words or sentences. The glyphs could also be read from left to right, right to left, top to bottom, or bottom to top. On top of that, there is no Mayan

alphabet. Each individual glyph could represent a sound, an idea, or both. To add to the confusion, each glyph could have more than one meaning. Since the Mayan hieroglyphs were first documented in 1962, only eighty-five percent of the glyphs have been interpreted. The epigraphers still can only interpret the glyphs rather than read them. First, most of the original text used to decipher them was destroyed by the Spaniard's on missions in Central America or they were lost over time. Second and most obviously, no native speakers can read or write the glyphs.

Mixteca Pictographs



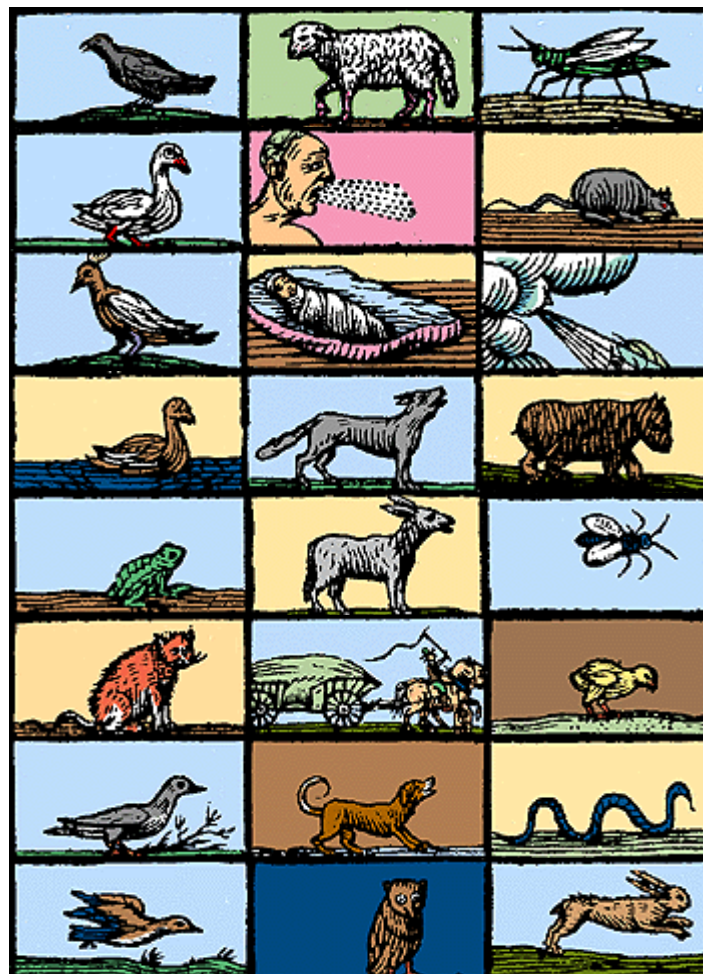
America Native Indian



Orbis Sensualium Pictus

Johann Amos Comenius, 1592-1670.

Orbis Sensualium Pictus translated as "The Visible World" or "The World Around Us in Pictures" was the first European schoolbook based on the idea of visual education. Each page consists of a picture of some subject or object and, underneath, a bilingual Latin-English text which in simple terms explains the image. Originally published in German and Latin in Nuremberg in 1654, the book was available to both adults and children. Used as a picture book by young children and a Latin textbook by older students, Orbis Sensualium Pictus was reprinted until well into the nineteenth century.



























































"Science, or the knowledge of nature, consists of an internal perception, and needs the same essentials as the external perception, namely the eye, an object, and light. If these be given, perception will follow. The eye of the inner perception is the mind or the understanding; the object is all that lies within or without our apprehension, while the light is the necessary attention."

"He, therefore, who wishes to show anything to another at night must provide light, and must polish the object so that it shines; and in the same way a master, if he wishes to illuminate with knowledge, a pupil shrouded in the darkness of ignorance, must first excite his attention, that he may drink-in information with a greedy mind."

Hobo Signs

Supposedly developed by the wandering Europeans commonly called gypsies, hobo signs were used by American hobos to communicate with each other. Signs were chalked onto doorways, fencepost, walls and rocks.

 KIND LADY LIVES HERE	 KIND WOMAN, tell pitiful story	 FOOD HERE if you WORK	 RELIGIOUS TALK get FREE MEAL
 IF YOU ARE SICK, they'll care for you	 DOCTOR HERE WON'T CHARGE	 FREE TELEPHONE	 ALCOHOL IN THIS TOWN
 YOU CAN SLEEP in HAYLOFT	 YOU CAN SLEEP in HAYLOFT	 YOU CAN SLEEP in HAYLOFT	 YOU CAN SLEEP in HAYLOFT
 KEEP QUIET	 KEEP QUIET	 KEEP QUIET	 KEEP QUIET
 HOLD YOUR TONGUE	 HOLD YOUR TONGUE	 HOLD YOUR TONGUE	 HOLD YOUR TONGUE
 BARKING DOG HERE	 BARKING DOG HERE	 BARKING DOG HERE	 BARKING DOG HERE
 VICIOUS DOG HERE	 VICIOUS DOG HERE	 VICIOUS DOG HERE	 VICIOUS DOG HERE
 BEWARE of FOUR DOGS	 BEWARE of FOUR DOGS	 BEWARE of FOUR DOGS	 BEWARE of FOUR DOGS
 EASY MARK, SUCKER	 EASY MARK, SUCKER	 EASY MARK, SUCKER	 EASY MARK, SUCKER
 THE KEY is the LIMIT	 THE KEY is the LIMIT	 THE KEY is the LIMIT	 THE KEY is the LIMIT
 TROLLEY STOP	 TROLLEY STOP	 TROLLEY STOP	 TROLLEY STOP
 GOOD PLACE to CATCH a TRAIN	 GOOD PLACE to CATCH a TRAIN	 GOOD PLACE to CATCH a TRAIN	 GOOD PLACE to CATCH a TRAIN
 THIS IS NOT A SAFE PLACE	 THIS IS NOT A SAFE PLACE	 THIS IS NOT A SAFE PLACE	 THIS IS NOT A SAFE PLACE
 MAN with a GUN LIVES HERE	 MAN with a GUN LIVES HERE	 MAN with a GUN LIVES HERE	 MAN with a GUN LIVES HERE
 BE PREPARED to DEFEND YOURSELF	 BE PREPARED to DEFEND YOURSELF	 BE PREPARED to DEFEND YOURSELF	 BE PREPARED to DEFEND YOURSELF
 DISHONEST PERSON LIVES HERE	 DISHONEST PERSON LIVES HERE	 DISHONEST PERSON LIVES HERE	 DISHONEST PERSON LIVES HERE
 COWARDS will give to get rid of you	 COWARDS will give to get rid of you	 COWARDS will give to get rid of you	 COWARDS will give to get rid of you
 YOU'LL BE CURSED OUT	 YOU'LL BE CURSED OUT	 YOU'LL BE CURSED OUT	 YOU'LL BE CURSED OUT
 A BEATING AWAITS YOU HERE	 A BEATING AWAITS YOU HERE	 A BEATING AWAITS YOU HERE	 A BEATING AWAITS YOU HERE
 POLICE HERE FROWN on HOBOS	 POLICE HERE FROWN on HOBOS	 POLICE HERE FROWN on HOBOS	 POLICE HERE FROWN on HOBOS
 AUTHORITIES HERE ARE ALERT	 AUTHORITIES HERE ARE ALERT	 AUTHORITIES HERE ARE ALERT	 AUTHORITIES HERE ARE ALERT
 THERE ARE THIEVES ABOUT	 THERE ARE THIEVES ABOUT	 THERE ARE THIEVES ABOUT	 THERE ARE THIEVES ABOUT
 CRIME COMMITTED, not safe for strangers	 CRIME COMMITTED, not safe for strangers	 CRIME COMMITTED, not safe for strangers	 CRIME COMMITTED, not safe for strangers
 JUDGE LIVES HERE	 JUDGE LIVES HERE	 JUDGE LIVES HERE	 JUDGE LIVES HERE
 COURTHOUSE, PRECINCT STATION	 COURTHOUSE, PRECINCT STATION	 COURTHOUSE, PRECINCT STATION	 COURTHOUSE, PRECINCT STATION
 OFFICER of LAW LIVES HERE	 OFFICER of LAW LIVES HERE	 OFFICER of LAW LIVES HERE	 OFFICER of LAW LIVES HERE
 JAIL	 JAIL	 JAIL	 JAIL

Contemporary Influences

Modern use

Pictograms are used in most modern societies, often serving as signs or instructions that do not depend on language-specific words. Because of their graphical nature and fairly realistic style, they are used in a universal manner, so as to be more widely understood. Some of the most universal pictograms are the ones used for caution in regards to dangerous materials and environments, such as the symbols for radioactive, bio-hazardous, poisonous, and flammable items.

However, finding universally understood symbols is not easy. For example, a pictogram of a man and a separate one for a woman are sometimes used to denote public male and female washrooms respectively, so that anyone, regardless of their language abilities can understand where the washrooms are located and which one to use. However, even these symbols are culture-specific. For example, in some cultures men wear dress-like clothing, and so a pictogram that uses a skirt-like shape to denote a female may not be universally recognized.

DOT pictograms

The DOT pictograms in the United States came from a 1974 finding by the United States Department of Transportation (DOT), which recognized that a standardized set of roadside pictograms were needed for the United States Interstate Highway System. The American Institute of Graphic Arts, Roger Cook and Don Shanosky of Cook and Shanosky Associates were all commissioned to develop this standardized system, and researching modern pictograms on a worldwide basis, the team produced 34 distinct pictograms. By 1979, 16 more symbols were added to the system, which brought the total to 50, where it remains today. Today the DOT pictograms are used at such places as airports, train stations, hotels, and other public places for foreign tourists, as well as being easier to identify than strings of text.

As works of the United States government, the images are in the public domain and thus can be used by anyone for any purpose, without licensing issues.

DOT pictograms representing, from left, "Escalator (up)," "Nursery" and "Ground transportation".

ISO 7001

The symbol used to represent parking areas.

ISO 7001 "Public information symbols" is a standard published by the International Organization for Standardization that defines a set of pictograms and symbols, as well as their use and placement for public information. The set is the result of extensive testing in several countries and different cultures and have met the criteria for comprehensibility set up by the ISO. Common examples of public information symbols include those representing toilets, car parking, and information, and the International Symbol of Access (ISA) or "Wheelchair Symbol." Specific uses of the ISA include:

- Marking a parking space reserved for vehicles used by the disabled
- Marking a vehicle used by a disabled person, often for permission to use a space
- Marking a public lavatory with facilities designed for wheelchair users
- Indicating a button to activate an automatic door
- Indicating an accessible transit station or vehicle
- Indicating a transit route that uses accessible vehicles.

Road Signs

International Road Signs from the 30s



\Locos (Lovers Communication System)

Sun Day 太陽 日	Man 人	Heart Feeling 心 感情 精神	Land Place 土地 場所
Morning 朝	Postman 郵便配達人	Happiness Enjoyment 喜び 楽しみ	Home Town 郷里
Night 夜	Pilot パイロット	Forbearance 我慢 辛抱	Where どこ
2 This Morning 今朝	Smoker 喫煙家	Hope 希望	Public Building 公共建築物

'Lovers Communication System', a pictogram system developed by Yukio Ota.

Words are formed by combining 19 picture elements. The system includes abstract elements which are used in combination with simple geometrical pictorial elements.

Sentences are formed using the same word order as English, but adverbs and adjectives are placed in the lines above and below.

It is possible to learn to use the system fluently within an hour.

Vocabulary elements a sentence

"The postman brought me a happy letter from my home town this morning."

"The postman brought me a happy letter from my home town this morning."

Contemporary Pictograms

A “pictogram” or “pictograph” is a symbol used to represent an object, a place, an event or a concept with an illustration. It’s basically a form of writing in which ideas are transmitted through drawing. It is the basis of cuneiform writing which uses drawings as phonetic letters. An ideogram is a symbol which represents an idea. Pictograms were used by the ancient Chinese as early as 5000 BC. They predated the famous Sumerian cuneiforms in Mesopotamia. They were used to label basic farm produce as early as 9000 BC and with the rise of cities and spread of basic craftsmanship they were used to label manufactured goods around 6000 BC. Amazingly pictograms are still in use as the main medium of written communication in some non-literate cultures in Africa, The Americas and Oceania. Below is an excellent example of some ancient pictograms.

Most of the letters of the Roman alphabet have their origins in pictograms. For example, the letter A represented the head of an ox, and if you turn it upside down, a bovine head with horns can be seen. Although written Chinese is often thought to consist of pictograms, less than 4% of all the characters ever created have a direct origin in pictograms.

Pictograms can often transcend cultures and countries because they can communicate to speakers of a many different languages. Road signs and other pictographic material (toilet, airport, and train signs) are often adapted as global standards because they can be easily understood by all. There is also a standard set of pictograms used for laundry symbols and chemical hazard labels. Above you will see a great pictogram from an Australia zoo warning against swimming because of the threat of crocodiles.

Standard Pictograms

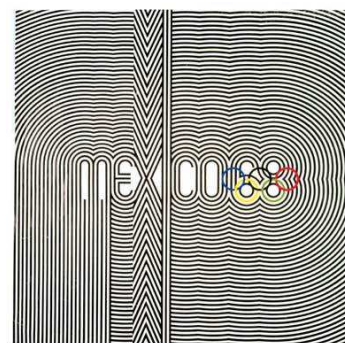
The twentieth century was the age of the brand. And the Olympics had been no exception. The classic Olympic logo designed by Pierre de Coubertin in 1920 is now accompanied by a frenzy of visual sign images: trade mark, posters, flags, ridiculous mascots like Catchy the Soskwatch, Sucki the Snow lip, Easy the Watset... and finally Pictograms.



These little symbols for individual sports reminiscent of airport restroom signs were first used in the German games from 1936. They became standard after the Tokyo Olympia in 1964. Since then designers have attempted to update the icons with varying degrees of success.



A few exceptional designs have drawn preys from critics and historians for years. Lan Swimen’s up-art inspired icons for the 1968 Mexico City Olympics, injected a hippie psychedelic feel into the proceedings. An arguably drug inspired look that suited the tanner of the times.



These were matched only by the optical wizardry of Roger Excoffier's icons for the Grenoble Olympics that same year, which used graphic scan line like those on famous TNT logo to suggest the element of speed.



Four years later Otto Lachers classic pictograms for the Munich games defined the genre.

They were smart and elegant conservative perhaps but appropriately German in their functional clarity.

For the 1984 Olympics in Los Angeles the firm Sasmen preiga made a spectacular graphic circus. The pictograms appeared on hot pink and orange, spangled with turquoise stars red, white and blue translated into the language of MTV.

Apart from these few pictographic schemes have distinguished themselves. The icons from Innsbruck like placed

Sarajevo and Calgary were just tweaks of archer's famous Munich pictograms. In 1976 Montreal simply reused the old designs.

But those thriving for originality have generally failed. Some pictographic schemes were anemic, while others looked as though they are on the juice.



The cave painting style of Lillehammer 1994 pictograms may have had its charms but the icons are spindly distraction rather than helpful signs.

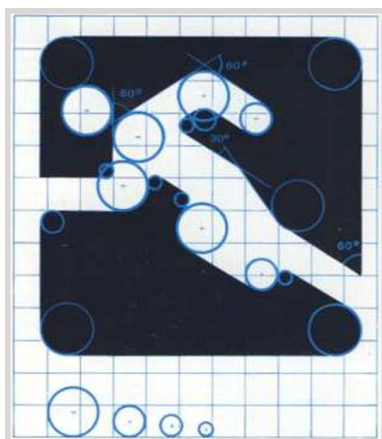


Albertville 1992.



On the IOC's request, graduates from several art colleges took up the design of the pictographs of the insignia as the theme of their dissertations. With the help of the research institute of industrial aesthetics, the Organizing Committee chose the work submitted by Nikolai Belkov, Mukhina Art School graduate from Leningrad.

The State Committee for Inventions and Discoveries under the USSR Council of Ministers recognized the new design as a production pattern.



Though highly stylized, the new signs are easily comprehensible. They are smoother in outline because they are constructed at an angle of 30° - 60° (previously the angle was 45° - 90°).



The sports pictograms used for 1988 Seoul Olympics were distinguishable from the past Games by the division of the composition into trunk, arms, legs and head. The connecting parts for arms and legs were treated in a simple and clear fashion but resembling as close to the composition of human frame as possible. Sports pictograms were also utilized as elements of expression in various public relations and printed materials, including decoration, admission tickets for each sport and posters.

Atlanta 1996

See also:

<http://creativerepository.com/2010/01/14/evolution-of-olympic-pictograms-1964-to-2012/>

How Picto images can be used

Pictogram is used in many different ways: for contact books, shopping lists, calendars, email, ordinary letters and so on, i.e. both for communication and as a memory aid.

Everyone can benefit from Picto images – they make it easier to find your way around and our Picto images are us in many public settings: in schools, libraries, hospitals, housing for the elderly, sports arenas, public transport and other public environments.

Pictogram is a well thought-out system – a standard – for signage, printed matter, and websites and so on. It increases accessibility for everyone.

Pictogram for accessibility

Pictogram increases accessibility – not least for people who cannot read – and municipalities and county councils have realized this. In public settings Picto images can act as a complement to normal text signage – or completely replace it. Picto images can now be seen in schools, libraries, hospitals, housing for the elderly, sports arenas and so on.

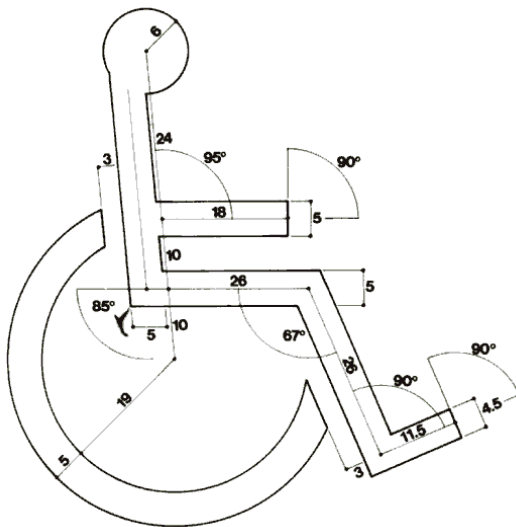
Drafts of Evacuation Pictogram



Drafts of Japanese Exit Pictogram



Design specifications: 'Handicapped access' pictogram



1.2. Information Research (Stage theoretical and analytic)

Basic design requirements, standards, in terms of an open-minded and an informed consumer.

- Socio-user Address (connection between the product and the user)

Open-minded consumer:

For the open-minded consumer some things always make impressions. For example everything new and unusual is interesting, also color is the thing that have always been attractive to people. There are no age, gender or belief limits.

Informed user:

The group of consumers that are the target of the product is a mixture of people from different age, size, beliefs, etc. It can be used for people who have no problems with understanding and others who have problems with communication and understanding. People will understand the product no matter how old are they, because of the

simple essence of it. When an open-minded consumer sees the product he know what does it mean and how to “use” it. People who “use” the product can be children, also older people, also men and women. The geographical area doesn’t matter. There are no restrictions for using the product. It can be used worldwide.

- Functional and Performance requirements of the product (safety, services, availability)

Open-minded consumer:

The open-minded consumer wants this product to be available everywhere where he can find problems understanding or finding something. That way he will feel safe and secure. Every service must be clearly shown. The consumer doesn’t want the product to be annoying for him or too aggressive. On the other hand he wants it to be interesting.

Informed user:

The informed user knows that the product must be eye-catching in order to cover the needs of the User (consumer). On the other hand the product mustn’t be intrusive, because it can take too much attention and not this is the point of its use. The main purpose of the product is to show, clarify and give directions to the User (Consumer) who needs them. And that is why it must be clearly distinguished from the other visual information around the main product. In order for the User (Consumer) to feel safe and secure the product must be placed everywhere to indicate directions, objects, places. That way he will always know his location.

- Human features-ergonomics and anthropometry requirements

The physical features of the human body don’t have directly related to the design of the product. Although we have to keep in mind that the product is to be seen from a distance and should be consistent with that. During the applying of the product we have to make sure that this is done correct and secured, because usually the product will be applied in high above Users’ (customers’) heads. It has to be consistent with the optical angle of vision.

- Environment friendly

Open-minded consumer:

The product shouldn’t be dangerous for the environment or the User (consumer). It should be made from an environment friendly material, which after that can be recycled or used again.

Informed user:

During the process of creation of the product everything should be strictly tracked in order not to have pollution. The materials used, the processes done should all be environment friendly. The material that is used should be easy recycled or used after the exploitation time.

- Design and technology

Open-minded consumer:

The information that the product tries to show should be readable from the first look. The signs should be big enough to see them without any difficulties. The pictograms should be understandable. If text appears anywhere it should be readable.

Informed user:

For now the project is not to be mass production. That is why the product can be made by expensive and rare materials. But whatever material is used we should keep in mind that the less lost materials the better. One of the most important things is that the product should have an interesting and eye-catching design. We have to prepare concept product, to show the dependencies in the making of the product. How it is made and what relations exist in the making of it. The pictograms should be placed in nets. And also to show the color separation if there is one.

- *Surfaces- depends on the exploitation*

Open-minded consumer:

He would be happy to have some nice looking surfaces, which are nice to be touched or looked at. Also he would hate if the product has some edges or spiky parts.

Informed user:

He knows that the surface depends on the exploitation of the product. The product will be used mainly for showing directions, places or activities, but will not be the part of the action. That is why the surfaces can be smooth and glossy. Most of the pictograms will be placed on plane surfaces and displayed to the users from distance, which will be syobrazena with iziskvaniqta I normite. The most important thing is the material to be hard, unbreakable as much as it can. The surface will be covered with some protective foil or polish. It must be protective for the paint and protective from the UV-light. Another thing is to make sure that the materials that cover the surface are nadegdni.

- *Mnemonics (clear knowledge of the use, maintenance, safety)*

Open-minded consumer:

To be easy to remember or recognize the signs they have to be easily shown in a way that people understand them without difficulties. The signs should show the thing they are supposed to short and clear. We should keep in mind that you want to show something and every other person should see it your way.

Informed user:

To remember or recognize an object or activity we should use already known, used or things we met in our day life. We work mainly with associative thinking. So in order to succeed with the project the associations should be clear almost obvious. The most important thing is the signs to be read and recognized with no trouble.

- *Knowledge of the color-functional information, safety, accordance with the ethnography*

Open-minded consumer:

The second most important thing is the color we use. It's better to keep the pictures simple, that is why for some people they might look boring or not good enough. So in order to satisfy even the most extravagant desire, we should use color (different pallets).

Informed user:

The Informed user knows that not the color is the most important thing of the product but the clear idea. Nevertheless it is always good to have some colors in one's project. But of course not the colors are the thing we need to emphasize. That is why the color should exist only to emphasize on an activity that we want to show with a certain pictogram. Also we have to take in mind the place where the pictograms will be used; the country in which they will appear. And to know what colors are appropriate to use in that country. The clever usage of the colors can make it easier to sell a product or achieve an effect.

1.2.2. Additional requirements for the design in terms of open-minded and informed consumer.

- Package depends on the exploitation (resistance, protection, graphic standards and readability)

Open-minded consumer:

In order to keep the product safe we need a good transportation package which is better to be hard. That way it will during transportation the product will not be damaged. A carton box which will contain the product can be used. Also the individual products have to be protected from themselves. So they have to be separated with some kind of material.



Informed user:

The package is for the protection of the product during counting, transportation and skladirane. Also there is individuality. As there are many different pictograms there are also many different signs. So every different sign and its pieces can be in one box separated from the others. It is easy to work and spread after that. The materials used for separating the different plates can be thin paper, plastic foil or stiropor.

1.2.3. Recommended design requirements in term of open-minded and informed consumer

- Artistic and aesthetic shaping – decoration, style differentiation

Open-minded consumer:

He wants to the product he buys to be interesting and unique with an interesting and unique shape and color. The shape should be smooth.

Informed user:

During the process of the creation of the product should keep the design simple and concrete in order to ease the customer when he uses it. Also there has to be a good aesthetic decision. If we use any kind of images they should be syobrazeni with the problem we have and the product we show. Most of the time is good to use the symbolic meaning of the signs and their associative meaning.

The shape must be smooth without any dangerous edges.

- Knowledge of color – color environment, psycho-emotional impact of working and the environment that we work in.

Open-minded consumer:

It is always good to have an option to change the color of the product depending on the customer's preference. So he might want to change



the color of the planes or the color of the signs. It will be better if the colors are strong and different. With the use of a certain color we can achieve a certain look, theme or mood. The color will be the one that most affects the user. The color can determine the mood.

Informed user:

One of the strongest senses of humans is sight. First we react to a visual image and then any other information we get. That is why if something intrigues us we are eager to show that we are interested and we can keep our attention on the product. Every color affects the human mind and psychology. Some colors make you feel calm, others anxiety, that is why we should know all the meaning of the colors when we chose the ones we will use. The emotions should be taken into account and also to be careful with the matching of the colors.

- *Mnemonics – aesthetic qualities, combining symbols and topographic types*

Open-minded consumer:

The used symbols and images have to be clear and readable. He should be able to understand the pictograms without the existence of the text. Sign and meaning of the sign should be linked.

Informed user:

In case we use some letters (text) we need to make sure that they look good near the pictograms, that they are the same style. If there is no appropriate style already done from someone else we should take one for example which is close to ours and transform it. The text and the graphic part of the sign should be equally emphasized. Also the image is more important than the text.

- *Surfaces - aesthetic qualities and ways to improve technological imperfection.*

Open-minded consumer:

He wants the product to look nice and when he touches it to be very smooth and pleasant. He wants to enjoy the look of it, the look of the surfaces and the materials and how are they connected.

Informed user:

The surfaces and the materials that may be used in the making of the product must be pleasant to the touch – with smooth surfaces and molded if there are not obvious or intrusive parts. Everything should be measured in order to be comfortable for using. It should be easy to clean wherever it is necessary. Everything must imply with the usage of the product. If the surface is glossy it should be mated because otherwise the light will reflect from it.

- *Packaging –aesthetic qualities in the choice of graphic symbols, typography and calligraphy presentation of the product to the society*

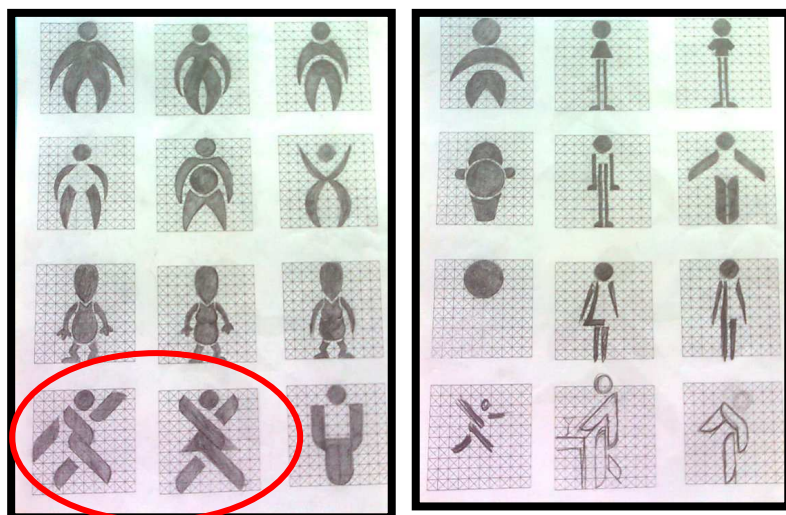
Synthesis of the main idea in simple way such as additional requirements in the form of keywords. To attract customers we need an attractive design. Also it is necessary to provide easy technological performance, low cost of the final product, high quality construction and reliable performance.\

1.3. Concept design

- Drawings and sketches

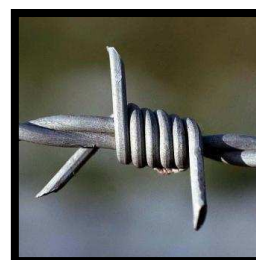


I am still in the making of the project. Until now the things I did took nearly one year. The sketches are uncountable by now. And yet, there are so many things to be solved.



The first thing I did was the main assignment: to create a basic pictogram layout. I had to create my picot-image which later will be used for the whole communication system. There were some cool basic ideas but finally we decided to use one of the images as it appeared to be simple and realistic enough. Also it kind of had an interesting idea in itself. The idea for the basic shape came from the look of a barbewire.

So from that day on I started to create the basic positions of the “little man”.



The basic positions were

- standing



- jumping



- walking



- running



- sitting



- lying



That was the first step and the first obstacle to go through.

The second thing I had to create was some ideas for a visual communication system: first to think of a place where the pictograms can be used and then to create the picto-images. I decided to go with A SHOPPING CENTER.

Meanwhile as I was doing this I found that I had some mistakes and some other things to consider.

*For example: there were some mistakes (lightened in orange in the image below) that I didn't have in mind, but as the process went I saw them. It is very important to keep the measures distinctive and set for every picto-image you make. So in a box with the size of 10cm*10cm the size of the picto-image of a man is:*

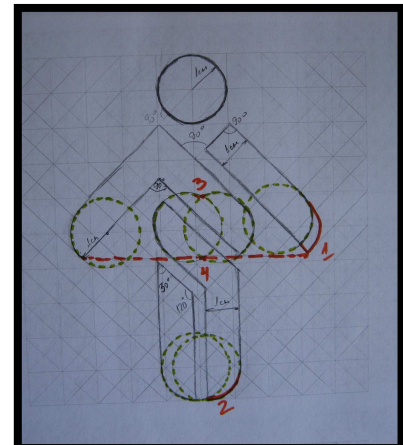
-height – 10cm

-width – 7cm

- size of the head – $r=1\text{cm}$

- size of the lines that create the body

width of all $a=1\text{cm}$



So after clearing that out I started to think of all the basic things that can be used in the shopping center such as services for which we need picto-images.

TELEPHONE



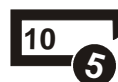
MOBILE



POST OFFICE



ATM



CHANGE



FIRST AID



ESCALATOR



STAIRS DOWN



STAIRS UP



ELEVATOR



TOILETS WOMEN



TOILETS MEN



TOILETS



NURSERY



INFORMATION



RESTAURANT



CAFE



BAR



PARKING



NO PARKING



DOGS NOT ALLOWED



FAST FOOD RESTAURANT



FOOD NOT ALLOWED



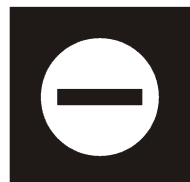
ICECREAM



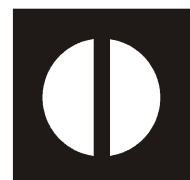
FOOD NOT ALLOWED



DO NOT ENTER



ENTER



FIRE EXTINGUISHER



EMERGENCY EXIT



EMERGENCY EXIT



SMOKING



NO SMOKING



LITTER DISPOSAL



SHOPPING MARKET



BILLIARD



BOWLING



DARTZ



TABLE TENNIS



ROLLERSKATE RAMP



HANDYCAP



BICICLE



CAR



ARROW DOWN



ARROW UP



ARROW RIGHT



ARROW LEFT



ARROW RIGHT UP DIAGONALLY



ARROW RIGHT DOWN DIAGONALLY



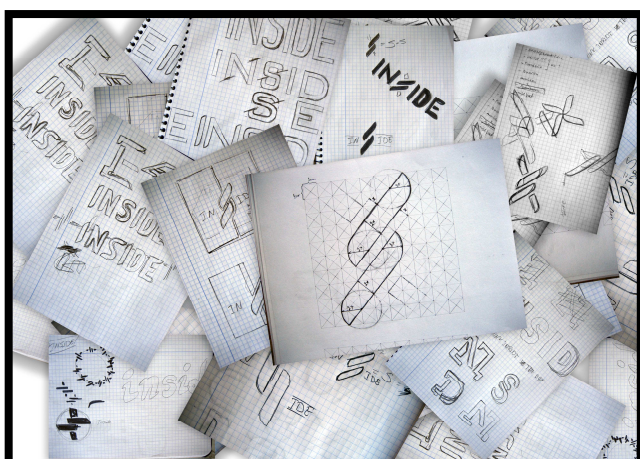
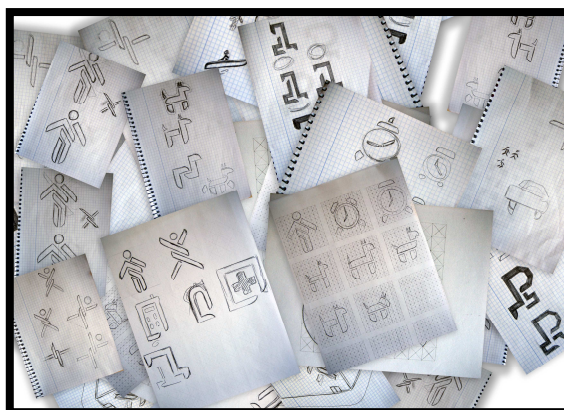
ARROW LEFT UP DIAGONALLY



ARROW LEFT DOWN DIAGONALLY



Another thing to do was to import the picto-images in a real situation a.k.a. a Shopping Center.



So I designed part of the accidency of a Shopping Mall.

I created a name for the mall and logo that can be used as an introduction to the pictograms. I used the same pattern and proportions to create the logo.

I had to link the meaning of the barbe wire that I used in the creation of the picto-images and the idea of a mall (a place where you go to do such and such thinkgs). That is how the idea came of a shopping center called “Inside”. I also thought of some frases that could be used for the

introduction of the mall to the customers in the advertisement materials.

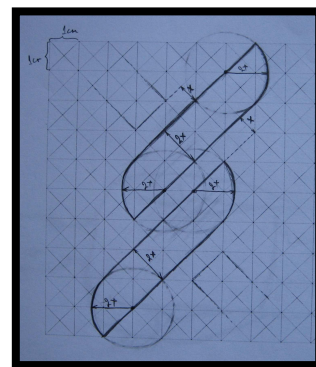
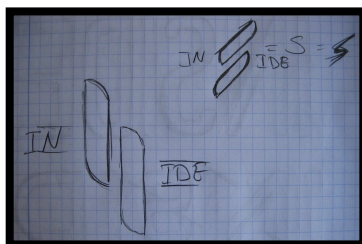
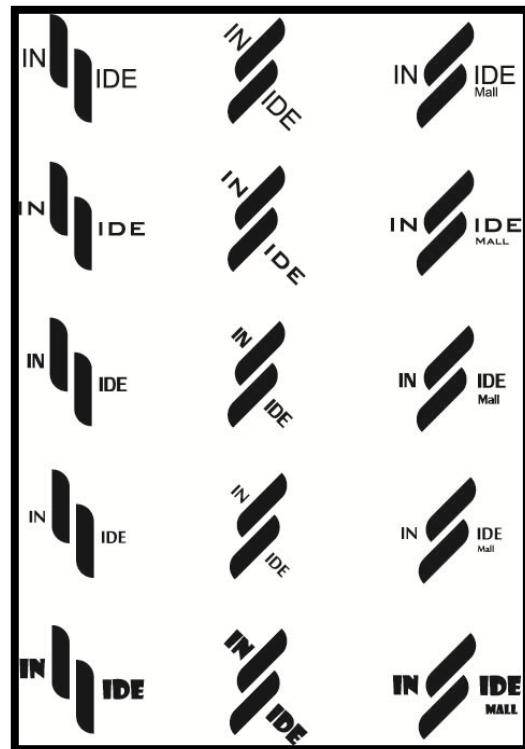
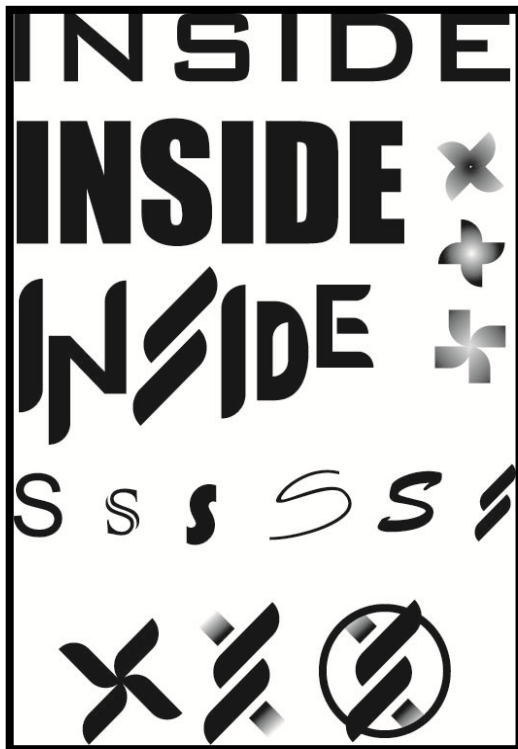
Break free! Come inside!

Freedom is inside! Don't be outsiders!

Come inside! Get an insight!

They are also connected to the symbolic meaning of the barbwire.

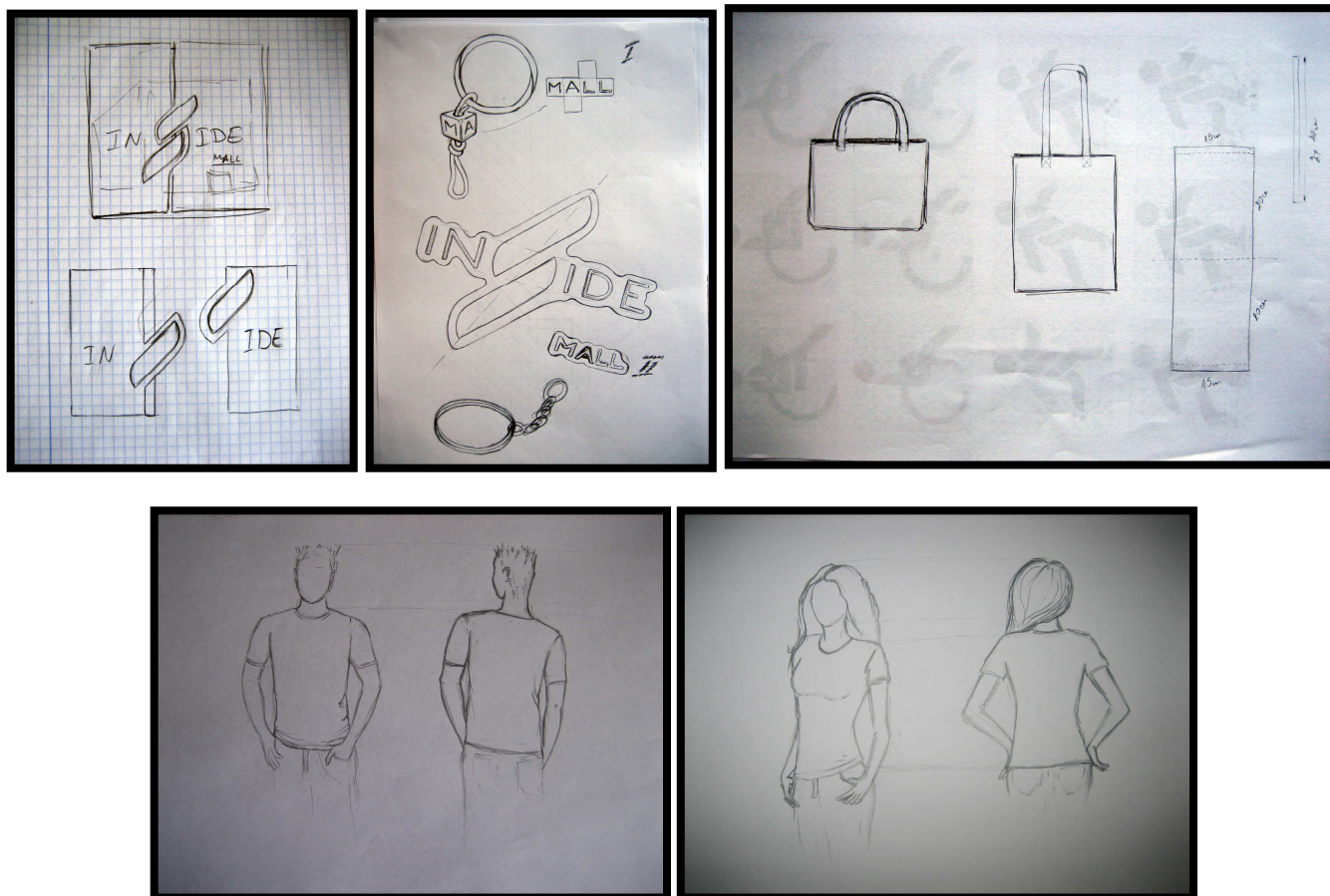
Another thing that I took into account was to make the logo look like the basic shape of the pictograms.



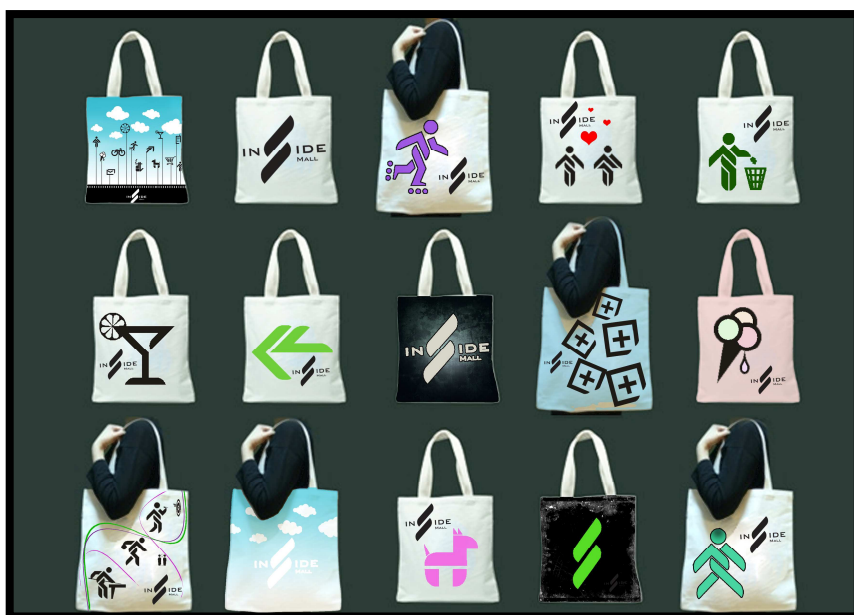
In the end I made my final decision. The logo I will be developing is: Ergonomic research of the advertisement logo – easy to read and clear correspondence no matter the size of the advertisement materials.



From now on I had to create the thing that the customer will appreciate and like most. The thing that will occupy his mind and will make him interested in the concept of the product.

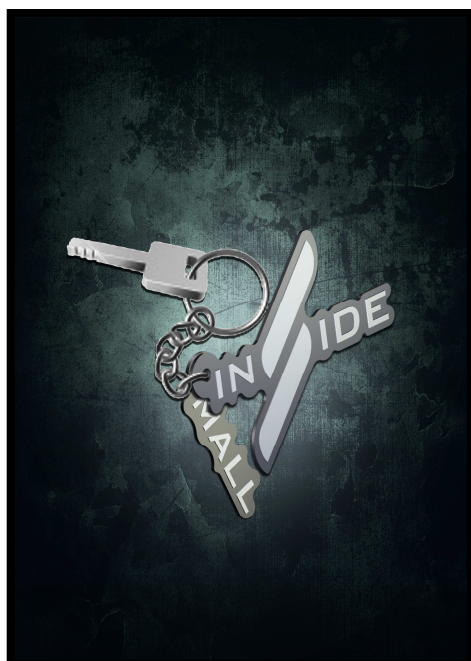


I made an example version of a brochure, the outside and inside look of the mall and some advertising gift for the Shopping Center.



-BAGS - Made in the outdoor billboard fabric or textile, the print bag is durable, water-proof, and easy to clean. Printed with the original patterns from the INSIDE Mall collections and made into simple and trendy shapes, tote bag is absolutely something you cannot miss for when you go shopping.

- KEYCHAINS – an accessory that can be attached not only to keys but also to the bag from above as a fresh touch.



- T-SHIRTS – a male and female model that is not only an advertisement but also a nice piece of cloth.

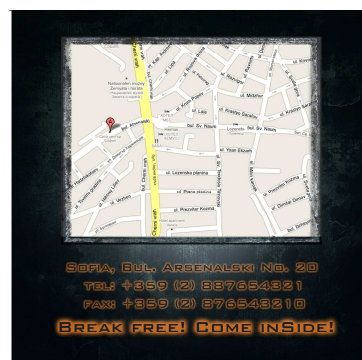
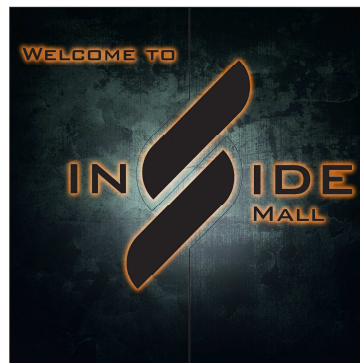


- PINNS – a collection of pins that you can everywhere. They are funny and different.

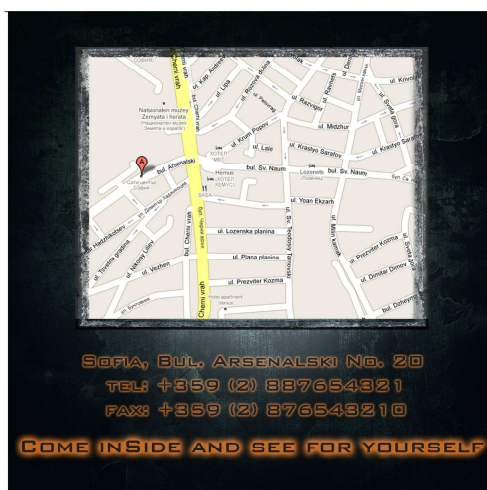
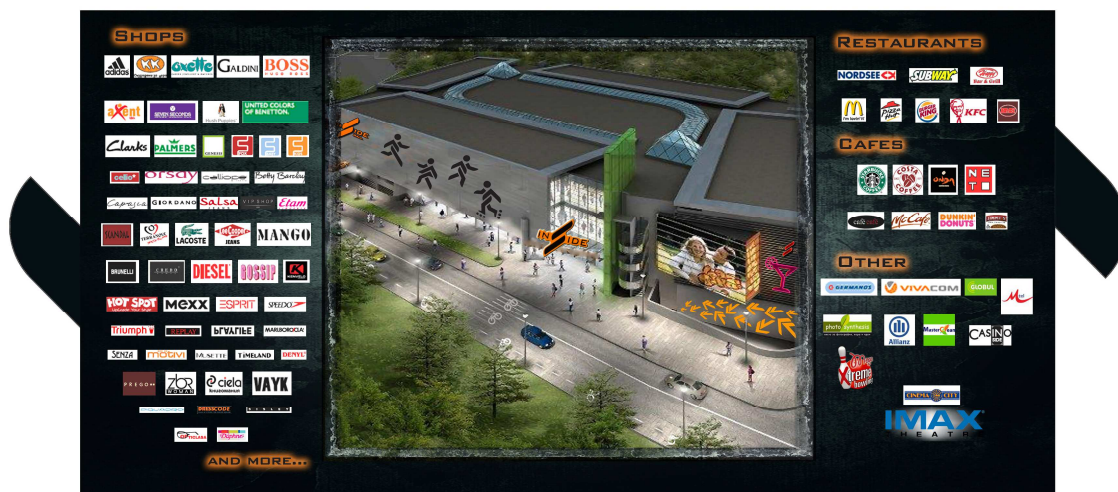
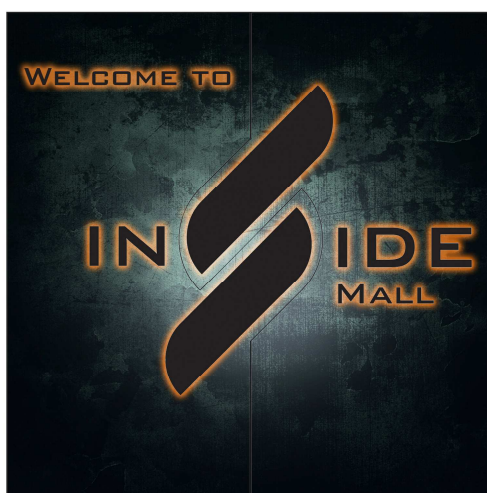


Design of the brochure and different variations of the outside look of the shopping center

Brochure variation 1:



Brochure variation 2: I prefer the second variation because it is more commercial and formal.



- 3D modeling design

3D modeling was necessary for the main sign of the mall and the signs inside it. First the idea was to create some custom signs or even custom materials for the signs. But in the end I decided to stick to the cheapest solution in order not to lose customers. My first idea was to make the signs of a material called cork, the same material of which the wine cork is made. I choose that material because of its easy treatment and custom look.



Although after some research it appears that this method and material will be expensive. So I decided to stick to the basic way of creating a sign: plastic surface with some foil stucked to it.

In the beginning I choosed a form which was again similar to the modules of the picto-images but after that decided to simplify the project again in order to reduce the expenses.



So the final decision was to use a rectangular form for the signs with all four corners rounded in order to be safe.



1.3.1. Ergonomic research. Design, ethnographic indicators:

- *Ethnological and geographical specific*-the products are aimed for unlimited range of customers. The advertisement products are to be in accordance with the anthropometric indicators of the customers. The anthropometric characteristics of the population are presented with the method of the percentiles. (P). They are examine in the border from P5 to P95 – P25, P50, P75, P95 while the most used is P5 and P95. During the design of this products it must be eady to use them so that 90% of the customers (P5 women and P95 man) will be happy to use them.

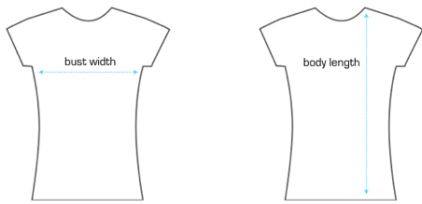
- *Nationality* – the product is aimed towards all type of customers. The products are aimed for the universal usage.

- *Gender* – there is no limitation in order to use the product.

- *Age* – there is no limitation in order to use the product.

- *Percentiles* - the product is designed to be according the anthropometric and physical characteristics of customers P5 women up to P95 men.

women



	XS	S	M	L
bust width	14 3/4 in 37.5 cm	14 1/4 in 36.2 cm	15 1/4 in 38.7 cm	16 1/4 in 41.3 cm
body length	24 3/4 in 62.9 cm	25 3/8 in 64.5 cm	26 in 66.1 cm	26 5/8 in 67.6 cm

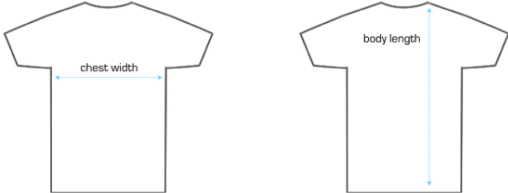
*measurements taken from shirt laying flat

Dimension of the human body - must be considered the anthropometric data in the diapason from P5 women to P95 men in both static and dynamic conditions.

Human body shape and size - normal or with admissible diversion from the normal. The products are design for a large circle of customers. Direct correspondences with the human body have the t-shirts. Choosing the size of the t-shirts will be used standard sizes: XS, S, M, L, XL to cover the whole range of the possible

participants.

men



	S	M	L	XL
chest width	18 in 45.7 cm	20 in 50.8 cm	22 in 55.9 cm	24 in 70 cm
body length	28 in 71.1 cm	29 in 73.7 cm	30 in 76.2 cm	31 in 78.7 cm

*measurements taken from shirt laying flat

Weight of the human body - the products (brochures, logo, pins, keychains) could be used from every type of customers with normal and over weight.

Hygiene indicators

- *Noise* – if sufficiently long perceived by the human body as irritant could cause temporary or permanent disability. During the manufacturing devices noise could accure, its level is important to be in legal limits set by the International Association of Acoustics. This products do not produce any noise.

- Vibration - mechanical fluctuations of material points or objects around a position. They can cause discomfort or even injury to the body. Vibrations may occur in the manufacturing process. If necessary should be taken out. This product do not produce any vibrations.
- Temperature – heat can appear during manufacturing process. Otherwise the product does not emit any temperature by itself.
- Radiation – it is a energy that can harm human body. The product is not radioactive.
- Toxicity – Toxic substances can cause pathological changes in the body. It is important that the workers are protected otherwise it might cause damage to the body. Toxic substances occur mainly in paints and varnishes used in the production process of the advertisement materials. The final product is not toxic.
- Ventilation – Only considered in the manufacturing stage. Most of the technological operations during creation of the materials need certain working conditions because during the procs of productivity are emminted some dangerous odors, which are harmful for personnel. That is why in areas like technology or machinery operations is wital to have good ventilation.
- The atmosphere pressure – without relation to the product.
- Humidity – main problem for the materials. The product could be deformed.
- Contamination level – The final roduct is not harmful to the environment. We should try to find solution how to reduce the waste. During the design of the product we should chose materials that can be recycled and used again. The environment could obtain some level of contamination. That is why we shold use environment friendly materials and inks.
- Light – An important part when designing product is the lighting. Lighting is very important factor in the production process. Low amount of light leads to a decrease in visual abilities of staff suggesting their health and from there the quality of products. The objects on the materials should be designed in a way to be visible (natural or artificial).

Physiological indicators

- Force – the materials are light so they could be used even from the users P5 women.
- Speed – not related
- Energy – not related

Psycho- physiological indicators

- Visual –through the eye man perceive more then 80% from the information in the surrounding world. In the design of the product this is one of the most important criteria.
- Acoustic – not related.
- Perceptive – the shape and the materials are to be pleasant to touch and not harmful for the health.

1.3.2. Graphic design and color of the logo – defining colors.

Logo positive and negative:



The logo can be separated in 3 parts. First part is the “IN” and “IDE” parts. Second is the “S” part and the third is the “MALL” part. So in order to emphasise on the “S” part it is bigger and with a custom design. The font for the other letters is an already done one BankGothic Md BT which is simple and nice looking with the custom “S”

Logo color design: The colors used for the logo are # f58123 for the orange part and #231f20 for the dark part.



Another thing that is used during the process of the creation of the logo is the background which appears almost everywhere with the logo. It is made in Photoshop by using several different brushes and light effects.

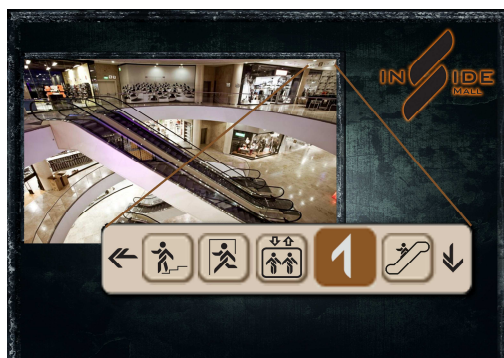


Also about the design of the signs the color used for them is:

- basic color #d9c8b6
- color of the signs #231f20
- color of the borders of the signs #7c6750
- color of the number #dce0df
- color of the box for the number #8a5627



There are some of the example images how the signs can look like in a real environment.



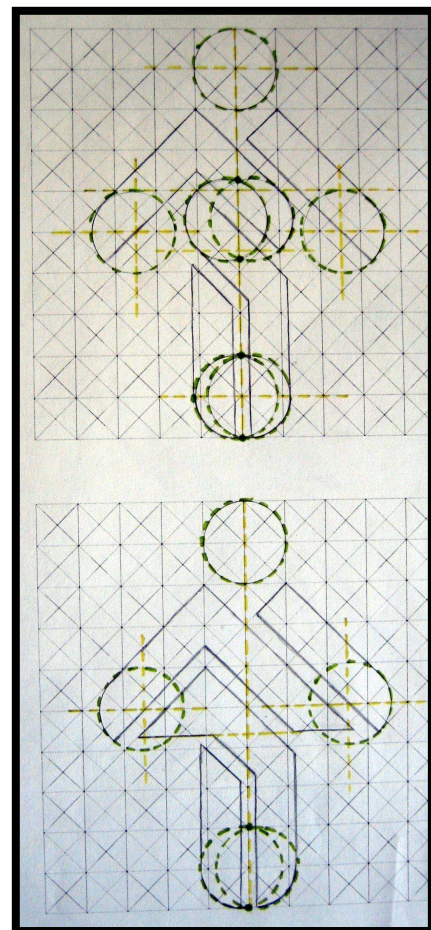
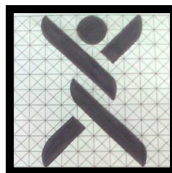


2. Detailed design

2.1 Design and technology

-Origin - we begin by defying the main design features about the pictograms. Their design is the most important part of the project. The basic male and female picto-image has some important dependencies which will be used during the project. The size of the box that is used to help create the picto-mages is with dimensions 10cm * 10cm and it is divided into small squares sizes 1cm * 1cm. In order to make the pictograms understandable and with one pattern we use this grid to help.

The size of the picto-image spreads from top to bottom of the grided box. That means that in scale 1.1 the height of the image will be 10cm. using the axis the making of the image begins. In the beginning the basic image was with hands up and spread legs, because of the idea that came from the image of the barbed wire. In the process of developing the project it became clear that the basic of the human figure is with legs close one to each other and arms not in the air constantly waving. That is why the concept was changed and this time the basic figure was more human like figure.

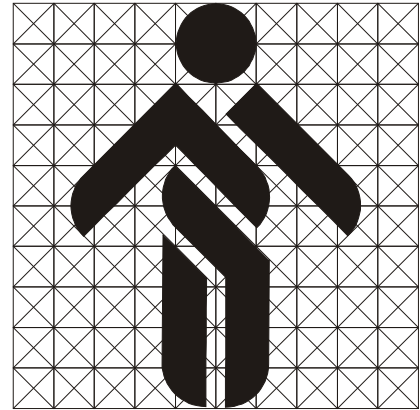


The next thing to consider was the size of the different parts of the body in particular the width of them and the distance between the parts. Creating the image for the first time the size of the parts was

considered to be the width of diagonally placed square but that appeared to be too big for it so it was reduced by 1/4 of the whole size. That is the same size of the square positioned horizontally. That way the legs were exactly the width of a square. So it appeared the proper size for the modules was exactly 1cm. And that is what I used. All the parts of the body are wide 1cm. There is already a relation that we found.

Now the head can be defined. The radius used for it is again 1cm. at the beginning this was just test, but in the end it appeared to be the right seize.

Another thing is that the radius used for the creation of the head is the same one used in the end of the arms and the legs, and also the body. So the final result appears to be very simple looking with all the relations. And the main thing was to use that relation through out the whole work. The width of the modules is 1cm. Another thing to consider is the distance between the modules and the angles that appear. The determination of the angles was easy because of the gridded square that is used for the model. They are limited number 30, 45, 90, and 120 degree. And the grid should be the lead which we follow. The last thing to determine was the distance between the modules. As we used 3/4 of the diagonal of a horizontally orientated square for the parts of the body, why not try to use the rest 1/4 as a distance between the modules. And indeed it worked.



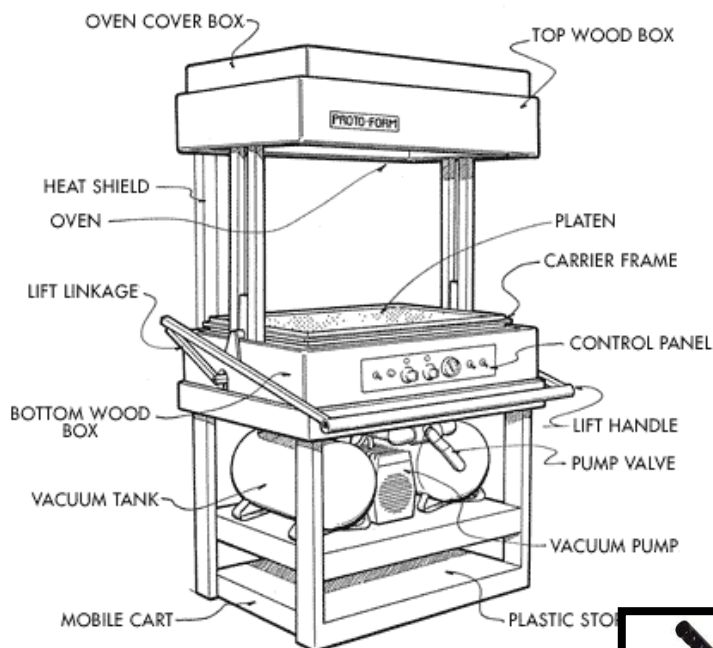
Using this dimension appeared to be perfect for the image. The reduction of the size of the image doesn't affect the recognition of the picto-images. They are simple and easy to read.



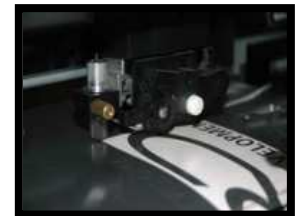
That is the way the basic human figure is created and everything in it is related.

The rest of the signs were to be easy created. The only thing was to have ideas for the different activities that are seeked.

-Origin the origin of the symbols is from a model of a barbe wire. Thius is the pattern that is used.



-Company-manufacturing equipment
The signboards used for the pictograms will be made form a sanitarc plastic material, which is easy to clean and maintain, and is cheap. The sighns will be made with the use of hot plastic material which is colored in advance and vacuum tecknology to create them.



Then with another machine the PVC foilwith will be cut out. And after that the foil will be sticked to the signs. That is how



the signs will be created cheap and simple. But the result will be satisfactory.
Other equipment is needed for the printing of the advertising materials: t-shirt printer, pinn-making mashine and others ets.

- Relationship between form and structure

Basic design principles – the principles used are the keeping of the basic form, size and dependencies.

Basic materials – the materials used are thermo deformative plastic and PVC foil with one glued side.

Manufacturing technology – the manufacture of the product will be numerous so the technology will be used over and over again.

Technology-manufacturing waste – in irder not to have much waste the production will be mmonitured and regulated often.

Post consumer waste - there will be small amount of post consumer waste.

The signs will be recyclable.

Duration of the product – the duration depends on the way of treatment.

As much as the product is used and touched it gets old.

Pre-factory prize depends on the number of copies – the number of copies can be unlimited.



Bibliography:

Some lections and other materials from my university.

<http://bg.wikipedia.org>

<http://translate.google.bg/?hl=bg&tab=wT#>

<http://laughingsquid.com/the-history-of-olympic-pictograms/>

<http://tlc.howstuffworks.com/family/beaded-key-chain4.htm>

<http://www.shutterstock.com/pic-1691394/stock-vector-dart-player-vector-illustration.html>

<http://www.donnygrafiks.com/works/graphic-design/>

<http://www.nofont.com/tidyman/the-tidyman-book>

<http://www.evgenidinev.com/mind/2001/11/22/>

“Universal Visual Communication System Design”

**for a Shopping Center and
Other
Entertaining Places and
Activities**

The purpose of this project is to create a Universal System for Visual Communication

The project includes several things to develop:

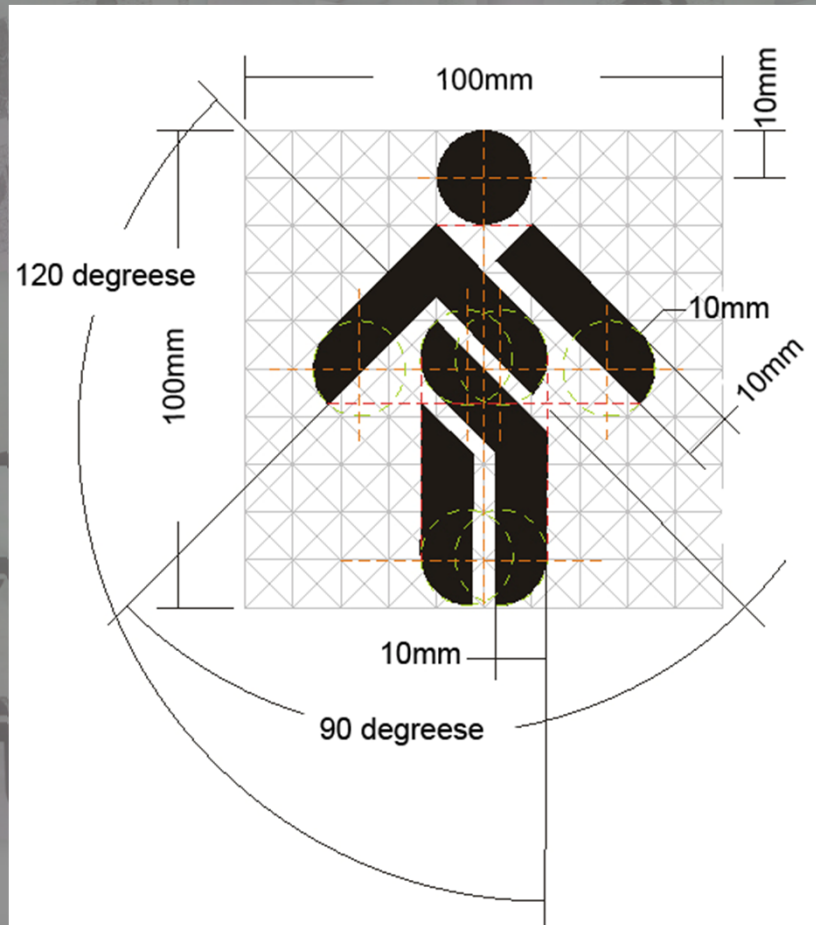
- The pictograms for a shopping center
- The advertisement materials for a Shopping center (name, logo, brochures, souvenirs and other materials)
- An example of a shopping center (inside and outside arrangements)

Design of the pictograms

Nowadays the pictograms are a necessity nearly everywhere. Not only on the road but also in buildings, parks, underground facilities. However, finding universally understood symbols is not easy.

A “pictogram” or “pictograph” is a symbol used to represent an object, a place, an event or a concept with an illustration.

Design of the pictograms



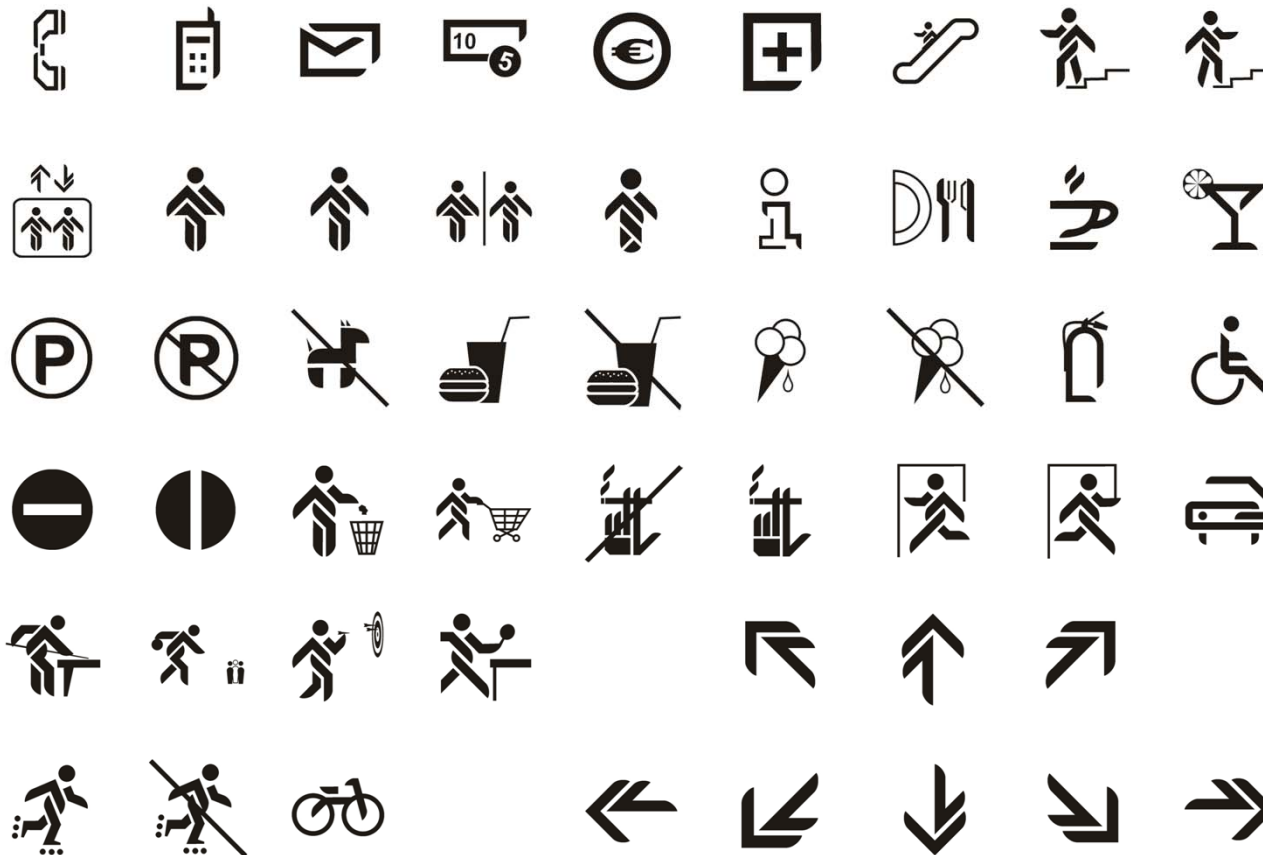
The size of the basic picto –image is 10cm*10cm. With the help of a square grid the design is easily defined.

There are some dependencies which are used through out the whole project. The measures are all connected and in the range from 1 cm to 10 cm.

The angles are too connected and in a certain range. There can be used only 0, 30, 60, 90, 120, 180 degreeese.

Design of the pictograms

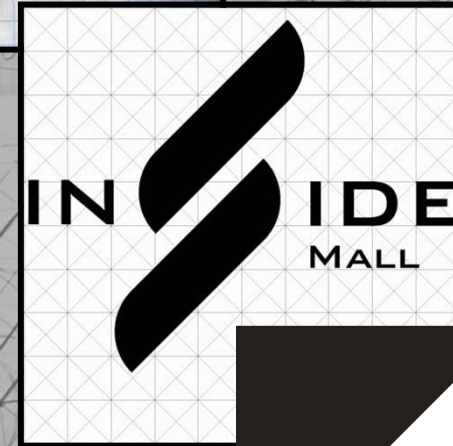
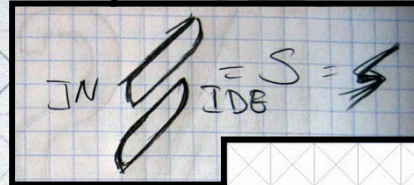
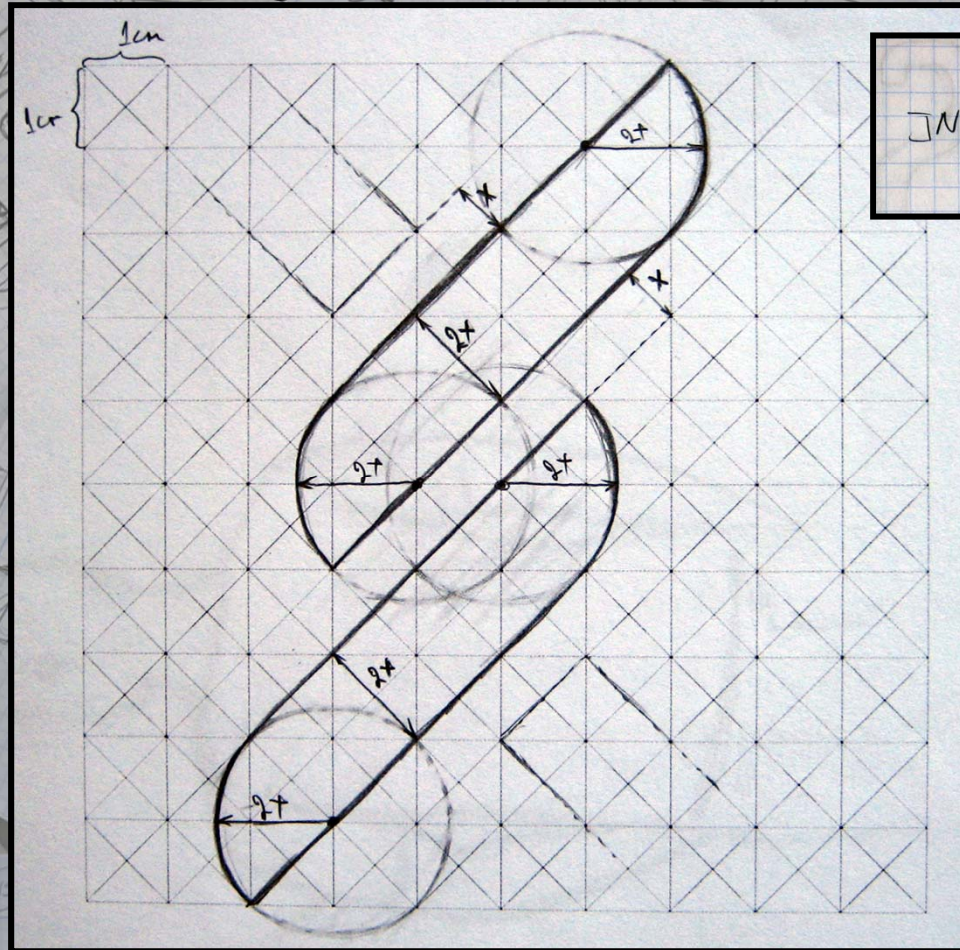
Using that pattern the whole system for visual communication is created. In total 41.



Design of the signs



Design of the shopping center logo



The same square grid is used for the creation of the logo. The same pattern appears, the same dependencies, also.

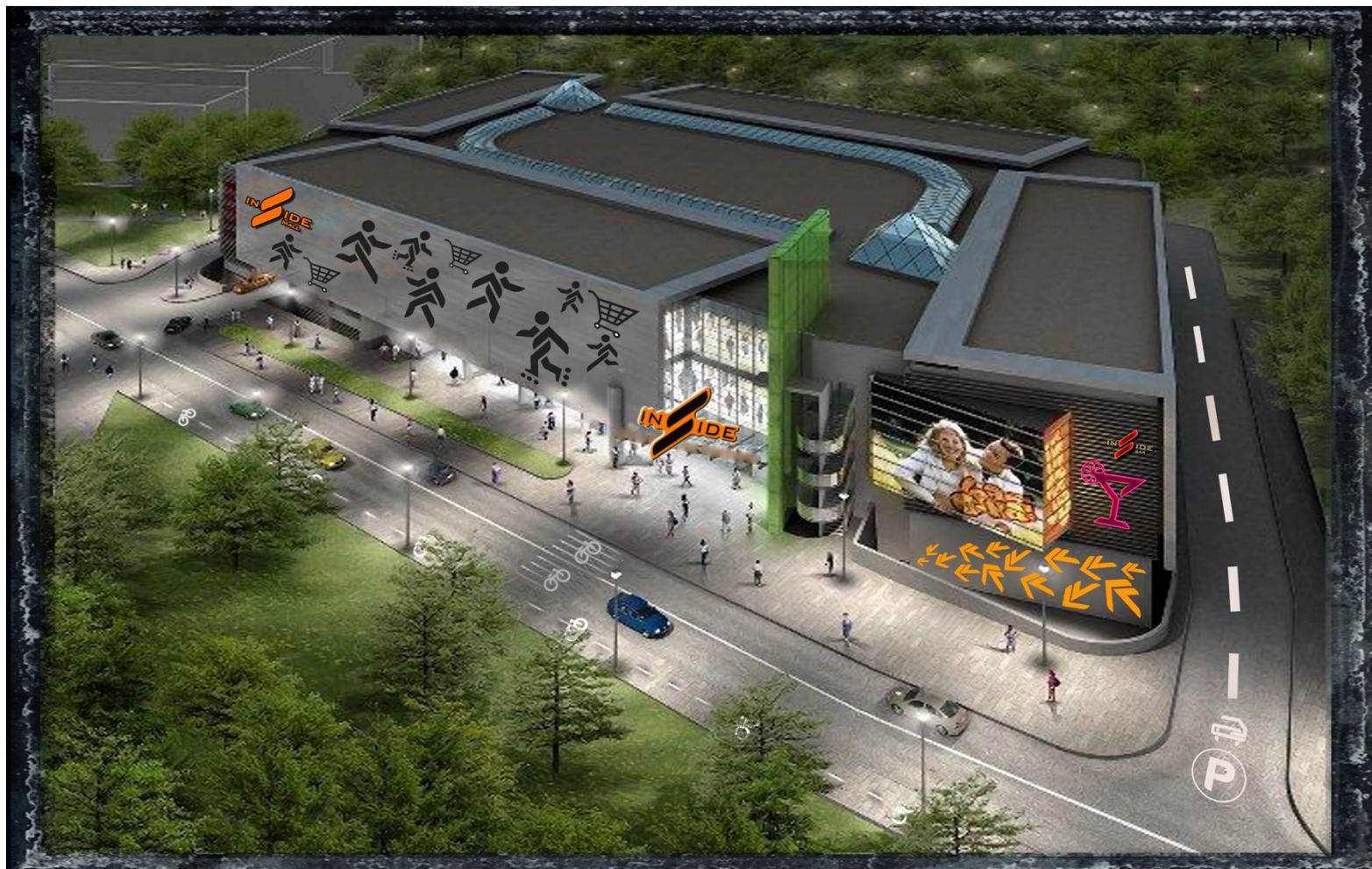
Design of the shopping center logo

Color variation



Appearance of the shopping center logo and some of the pictograms in real situation

1st variation



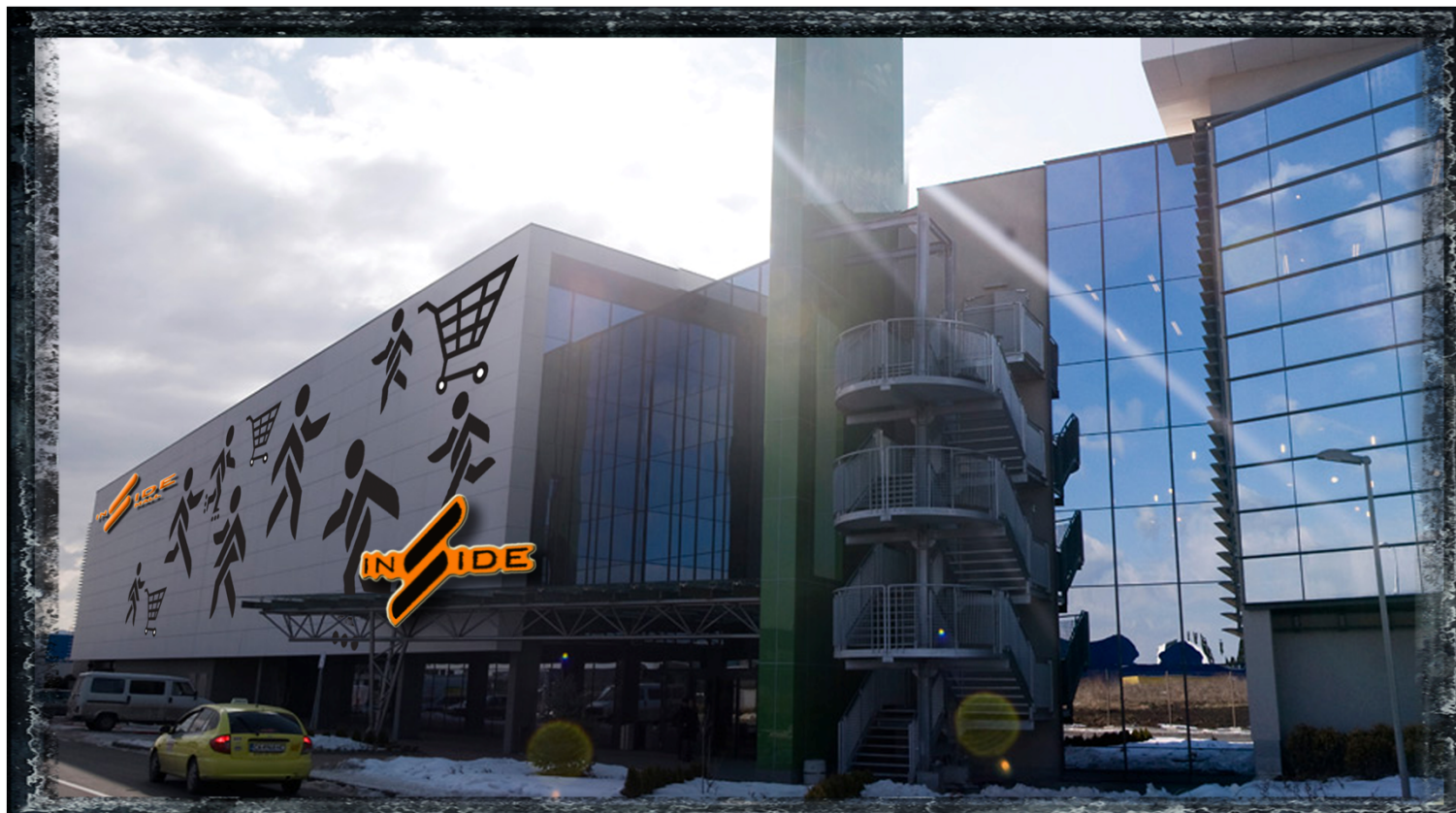
Appearance of the shopping center logo and some of the pictograms in real situation

2nd variation



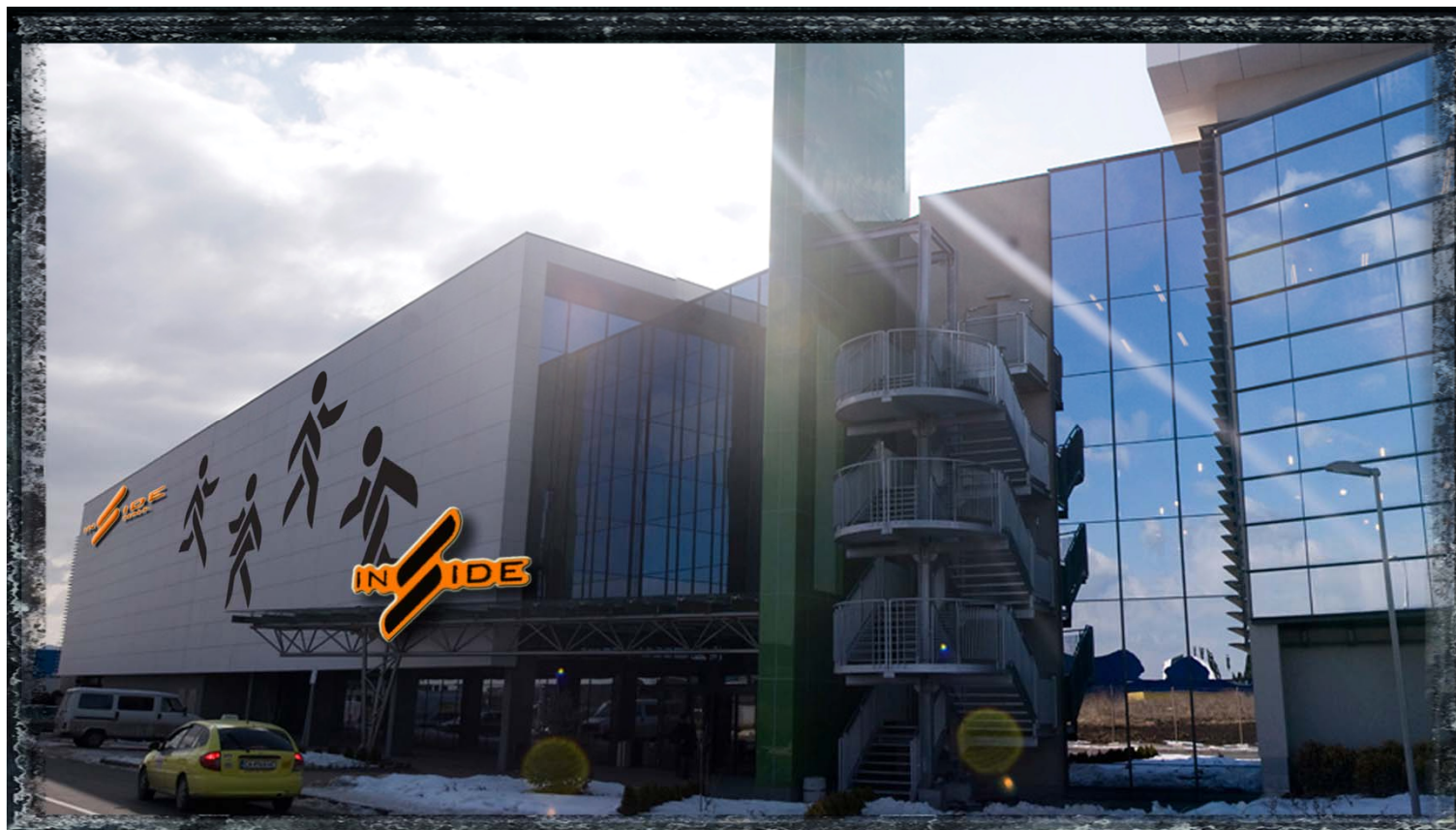
Appearance of the shopping center logo and some of the pictograms in real situation

1st variation



Appearance of the shopping center logo and some of the pictograms in real situation

2nd variation



Appearance of the shopping center logo and some of the pictograms in real situation

1st variation



Appearance of the shopping center logo and some of the pictograms in real situation

2nd variation



Appearance of the shopping center logo and some of the pictograms in real situation

1st variation



Appearance of the shopping center logo and some of the pictograms in real situation

2nd variation



Appearance of the shopping center logo and some of the pictograms in real situation



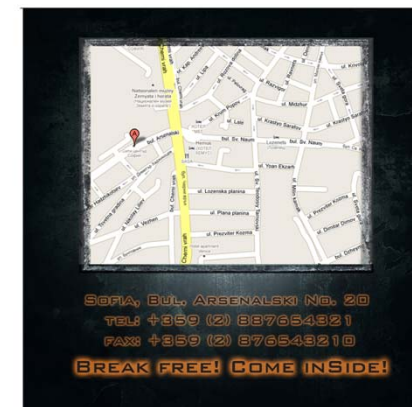
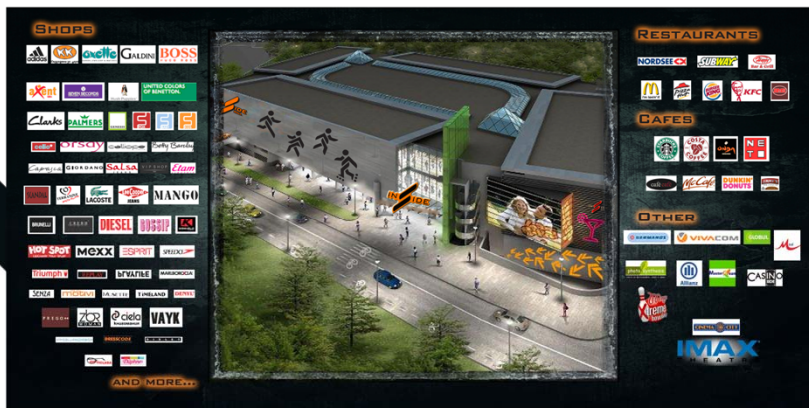
Appearance of the shopping center logo and some of the pictograms in real situation



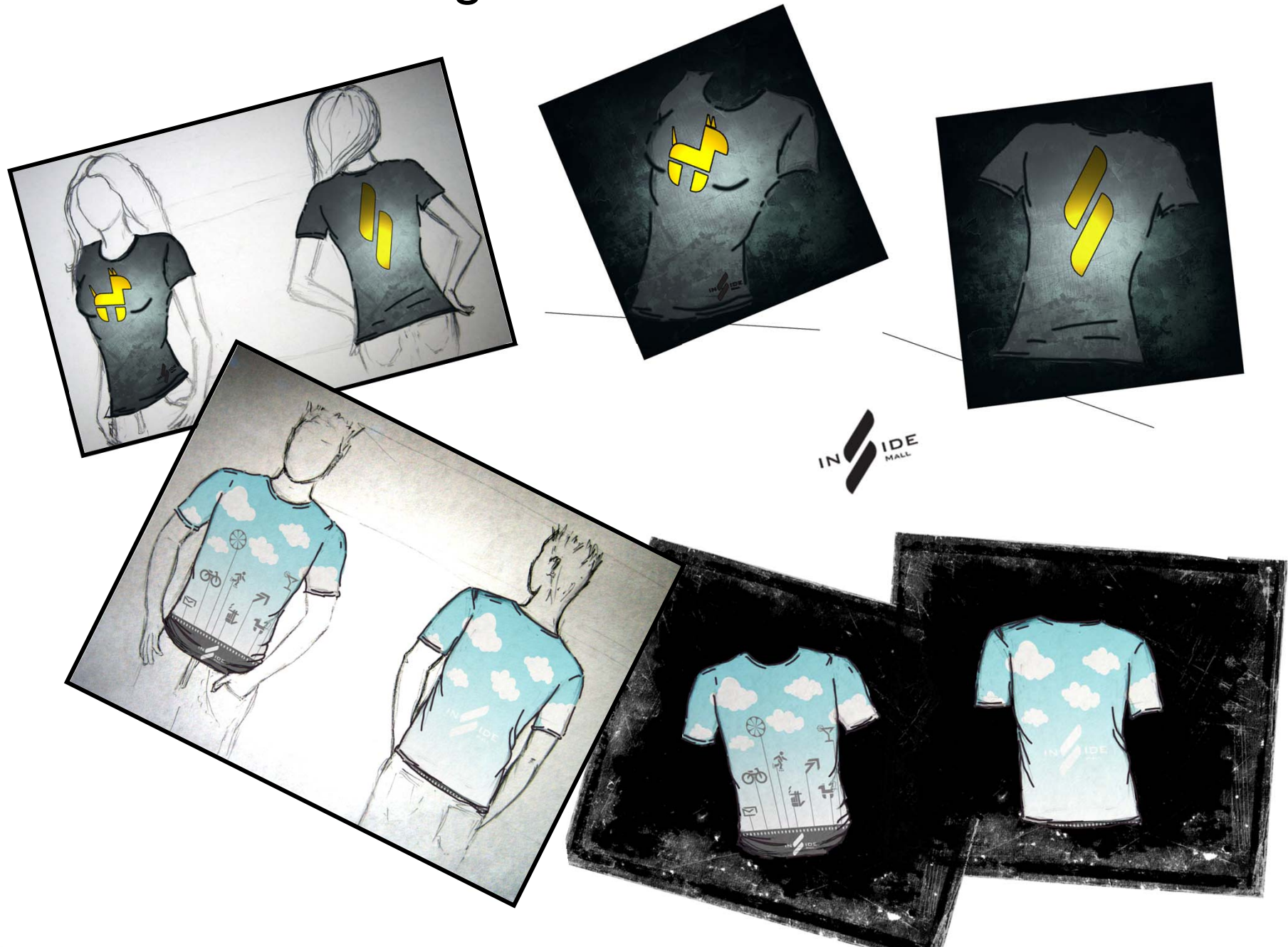
Appearance of the shopping center logo and some of the pictograms in real situation



Design of the advertisement materials that will introduce the pictograms to the customer in an entertaining way



Design of the t-shirt ad



Design of the bag ad



Design of the keychain ad



Design of the badge ad



Thank you!